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A JOINT PUBLICATION OF THE SOUTHERN ECONOMIC ASSOCIATION AND THE UNIVERSITY OF NORTH CAROLINA

Published Quarterly at Chapel Hill, N. C.

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Published Quarterly at Chapel Hill, N. C.

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THE RESIGNATION OF DR. SCHWENNING

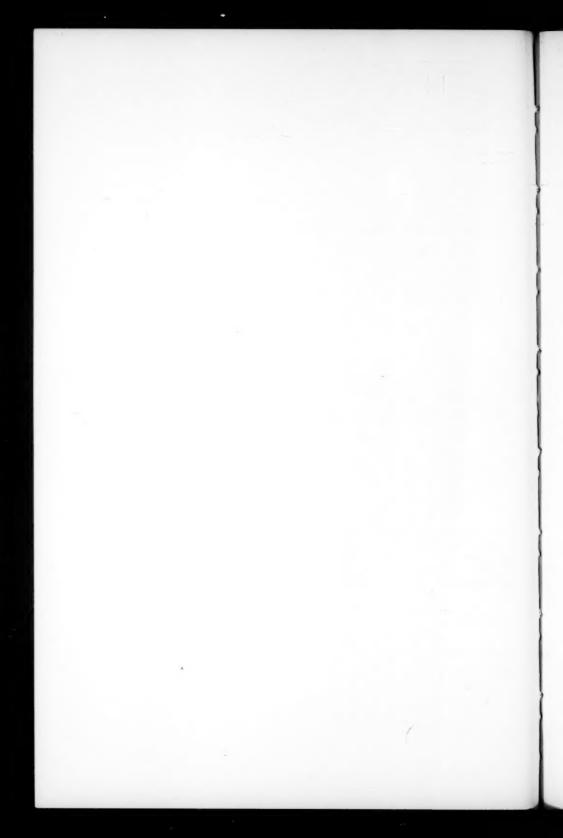
Readers of the Southern Economic Journal will learn with deep regret of the resignation of Dr. G. T. Schwenning as its Managing Editor. Mr. Schwenning served in this capacity continuously from 1936 to the present. He has for the past several months been on leave from the University of North Carolina, and the pressure of his present work as Principal Specialist in Management Education for the United States Office of Education has forced him to relinquish his connection with the Journal.

Messrs. Malcolm Bryan and Albert S. Keister, co-editors of the Journal during 1936, its first year under the joint sponsorship of the Southern Economic Association and the University of North Carolina, join with me in paying tribute to Mr. Schwenning's tireless energy and sound judgement in the early work of establishing the Journal. His was the heavy chore of routing manuscripts, supervising the printing, proof reading, checking subscription lists, and attending to the thousand other details of publication. In addition, his judgement was frequently availed of by the co-editors with respect to the manuscripts themselves.

More than any other person, Mr. Schwenning contributed to the selection of the present typography, format, and dignified, attractive physical appearance of the *Journal*. His even disposition, tact, and co-operative attitude in spite of all the vexing detail of his work, has added much to the "good will' value of the *Journal*. This note is an expression of gratitude from the Southern Economic Association through its President.

(Signed) EDGAR Z. PALMER

President



The SOUTHERN ECONOMIC JOURNAL

January, 1943

WAR CONTROLS OF MATERIALS, EQUIPMENT, AND MANPOWER— AN EXPERIMENT IN ECONOMIC PLANNING¹

RICHARD A. LESTER.

Duke University

In a capitalistic economy during times of peace, industrial control is diffused and is exercised either by impersonal economic forces in the market or by managers who decide the policies of their firms regarding such matters as prices, production, inventories, capital investment, sales, hiring, and training. In times of war, however, there can be less reliance on market forces and individual self-interest in the industrial sphere. Actions must be taken by government to direct, even to force, production out of certain channels and into others in short order. The use of economic resources for many peace-time pursuits must be curtailed in order to make certain that the nation's resources are used in the most effective manner judged by the one objective in total war: the maximum injury to the enemy within the shortest possible time.

In order to accomplish the rapid conversion of industry in line with the war program and in order to prevent waste or dissipation of materials, machines, and manpower on non-essentials, it is necessary for the central government to assume control over materials, facilities, and manpower to the extent that shortages develop. In times of war, government control supplants, to a considerable degree, the controls normally exercised in modern capitalistic societies by industrial management over such matters as kinds and specifications of products, purchasing policies, prices, inventories, employment practices, labor relations, hours of work, and even employee morale.

The longer the war lasts and the more severe the struggle, the more detailed and comprehensive the planning by the central agency must be and the less reliance there will be upon price, markets, and private spending to determine the distribution and use of the nation's economic resources. To carry out the central plans, government controls become more stringent and more widespread. For example, central control over the various factors of production has been more complete in Great Britain, Australia, and Canada than in this country.

¹ This article is based on the author's experience for almost a year and a half, first with the Office of Production Management and the War Production Board and later with the War Manpower Commission. That accounts for the absence of numerous footnotes and for the general character of the article. It surveys the situation up to the middle of October 1942. Therefore, no reference is made to the new Controlled Materials Plan announced by the WPB early in November and to be in full operation for the second quarter of 1943; nor does the article include references to the excellent Sixth Interim Report of the House Select Committee Investigating National Defense entitled, "Changes Needed for Effective Mobilization of Manpower," dated October 20, 1942 (House Report No. 2589), which appeared after this article was written.

The exercise of such central controls over the entire economy presents difficult problems of organization, planning, and execution of programs. To operate effectively the central control must formulate production programs, make purchases, schedule the construction of needed new equipment, arrange for the training of workers, and schedule the flow of materials and labor for the economy as a whole in much the same manner as industrial management performs such functions for the individual firm.

Long periods of time and, therefore, long-range plans are required for some items such as the construction of new facilities, the training of skilled workers, and the flow of materials to types of production necessitating a long period to fabricate complete units, like turbines and cruisers. Long- and short-range plans must be integrated, and the long-range plans must be flexible enough to permit rapid changes with such alterations in the war program as experience dictates, without causing significant losses in the use of productive factors.

Three phases of war-time planning and control of the economy will be considered here, namely: control of materials, control of plants and equipment, and control of manpower. The discussion will be in the nature of an interim survey of the character and problems of economic planning under central control during the war rather than an exhaustive, final study. Mainly it is based on impressions and personal experience rather than on examination of files and documents. The concluding section will indicate the significance of our war-time experience with central control to the post-war economy.

1

Control over the flow of materials to and through plants has expanded from a simple system of priorities to a complex system combining priorities with direct allocations to firms. With serious and widespread shortages of materials, a system of priorities or scales of urgency tends to break down unless all demand for materials is controlled and production is scheduled in line with a feasible, balanced program. The stages in the evolution of the control of materials have, generally speaking, been as follows:

- Issuance of preference ratings without total quantity limitations to prime contractors by the armed services and the OPM (WPB), recently confined to issuance by the WPB, which ratings could, for most purposes, be extended by the prime contractors to their sub-contractors.
- Direct allocations to firms of each material, usually monthly by the separate branches of the Materials Division of OPM (WPB).
- The introduction of the Production Requirements Plan (PRP), first for producers
 of off-the-shelf items and later for all firms consuming at least \$5,000 worth of
 metals a quarter.
- 4. Mass raising of ratings (rerating) for a presumed balanced military program, plus certain essential civilian items, in the summer of 1942.²

² These new ratings were AA-1, AA-2, AA-2x, AA-3, and AA-4 with AAA for emergency cases, whereas the former ratings were from A-1-a to A-1-k and from A-2 to A-10 with AA for emergency cases. B and C ratings were abandoned early in the game.

The control of materials has gone through a whole series of crises and reorganizations largely (1) because such control in the hands of the OPM and WPB has not been integrated with a control over the letting of contracts or production, which was primarily in the hands of the armed services and (2) because, at least until the last quarter of 1942, there was repeated inflation and depreciation of preference certificates as more tickets were given out than the available supply of materials. (In most cases the total supply of a metal or a fabricated part that should have been available in any month or quarter was not known for lack of adequate data on productive capacity and the size and location of inventories.) In addition to lack of any pre-determined limits to the issue of preference certificates against particular materials or components to prevent inflation of ratings, there was no plan for the issuance of ratings according to a set of agreed-upon criteria.

The rerating that occurred in the summer of 1942 was not complete, but consisted of raising the ratings for a certain group of military end products and industrial items, in terms of estimated quantities of materials needed by quarters. As it did not provide adequate control over each of the scarce materials themselves or over the placing of orders, it could not serve to bring total demand or total uses into balance with available supply in proper time sequence, which would be necessary to prevent a later inflation of both the new and old ratings.

Direct allocations by Materials Branches (the Copper Branch, the Iron and Steel Branch, the Chemicals Branch, the Rubber Branch, the Aluminum Branch, and other metals branches) proved unsatisfactory because the actions of the various branches were not coordinated for each firm or product and because the Materials Branches, dealing with firms at the early stages of metals fabrication, did not have detailed information on end products or the use of those end products. The Copper Branch, for example, could allocate copper to wire mills, but did not know how much of the copper wire would be used for naval destroyers, tanks, or power plants and it was not in a position to allocate copper directly to the producers of military and civilian end products.

Consequently, the scaling down of requests on application forms was frequently by uniform percentages with a "kitty" or contingency reserve set aside to meet misjudgments and mistakes. The most successful Branch allocation apparently was in rubber, where control over both raw material and end-product fabrication was concentrated in one branch and where the products were, in general, less complex in the sense of containing small amounts of many scarce materials. The problems and difficulties encountered under general application of PRP will be indicated shortly.

Any system for controlling the flow of materials by a government agency must be judged by its ability to accomplish the following:

(1) Prevent over-ordering so that the program is really "do-able," yet is large enough to obtain all-out effort including enforced use of substitutes and elimination of non-essential activities. Effective control of orders before they are placed is necessary in order to avoid the chaos of over-ordering in which a large part of the program cannot be completed because so much material is tied

up in partially completed facilities and products. Under such a situation, any system for controlling the flow of materials will bog down, because it is put in the position of being forced to deny materials to programs already undertaken and partly completed.

(2) Secure well in advance the exact requirements of plants for materials by both quantities and dates. This involves the control and scheduling of production and of construction of new facilities—control to avoid unbalance in the production of materials, component parts, or end products and scheduling to be certain of the exact requirements so that materials are not badly distributed in time or location.

(3) Secure total material requirements for all industry by end user and end use of each product or service in sufficient time and in such form that over-all policy decisions can be made, which in turn can be carried out at various operating levels. In order that rational judgments of the relative importance and urgency of various requests for materials can be made, there must be some end-use classification of all requests and also data on the materials required to produce each end product—a bill of materials in either gross or net amounts.

(4) Provide sufficient flexibility in order to secure rapid correction of past mistakes and rapid adjustment to both changes in the scale of urgency and new decisions calling for accelerations or retardations within the program. This is partly a question (a) of how far in advance of fabrication of the materials the central control makes its decisions and (b) of what period of time such decisions are designed to cover, but it is also a matter of methods of making allocations or issuing priority certificates, which methods may, for example, have a bearing on the speed with which any rerating of products in the program spreads to all affected firms.

With differences in producing and purchasing practices and in the period of production or construction, it may be desirable to have monthly, bi-monthly, and quarterly allocations all occurring at the same time. Flexibility is also provided by setting aside a small reserve or "kitty" of materials to allocate during the period to meet errors, unforeseen emergencies, or minor shifts in the program.

Flexibility depends somewhat upon the number of critical materials or fabricated parts, in case certain fabricating capacities are important bottlenecks in the program, that are put under central control and are subject to periodic allocations. It is argued, for example, that, since only a few of the scarcest materials or components definitely limit the war production program, complete allocation of say the 5 scarcest materials in wide use would impose the necessary limitations and restrictions upon consumption of materials throughout industry in line with over-all policy decisions.

(5) Provide a satisfactory system of allocations for repairs, maintenance, and operating supplies. Materials used for such purposes frequently cannot be assigned to any particular output, and the same is true of materials used for industrial equipment such as tools and for service equipment such as transportation facilities and public utilities.

(6) Provide a satisfactory system of allocations for items for which end use information is not available such as (a) items normally purchased in large or bulk quantities and not for a particular order, such as nuts, bolts, screws and ball bearings, (b) off-the-shelf items such as small motors and earth-moving machinery, which are produced in advance of orders and require a long period of production, (c) the working inventory requirements ("pipe-line" filling) for new, expanded, or converted plants, and (d) warehouse requirements for stock on hand. In such areas of industry, purchasing practices or requirements may necessitate special arrangements for control of the flow of materials and components.

(7) Provide a satisfactory control of inventories so that they do not become excessive or unbalanced. Compliance may be tied up with inventory control.

The above-mentioned problems indicate the complex of realities that confronts a program for central planned control of materials. The planning and control must be centralized if total demand and supply are to be brought into balance, yet the central planning authority can itself schedule intelligently against total supply only if individual firms schedule their needs far enough in advance and actually follow those schedules.

One of the most difficult problems concerns the amount of materials that should be allocated for supplying various goods and services for the civilian economy. This task was made somewhat easier by the issurance of various priority orders,—L orders limiting or prohibiting the production of various civilian items, and M orders conserving various materials by limiting or forbidding their use in certain articles and by providing for simplification of design and specifications less wasteful in terms of the scarce materials. The War Production Board has been justly criticised for delay in issuing curtailment orders between December 7, 1941, and March 15, 1942, especially in the Consumers' Durable Goods Branch,³ thus permitting continued consumption of critical materials for non-essential purposes.

³ Cf. Additional Report of the Special Committee Investigating the National Defense Program Pursuant to S. Res. 71 (77th Congress), Senate Report No. 480, Part 8, June 18, 1942.

The Labor Division, the Division of Civilian Supply, and the labor unions concerned had urged much earlier cut-off dates than those adopted for civilian production of such items as domestic refrigerators, washing machines, metal furniture, certain plumbing and heating equipment, and house building. These two divisions of WPB had also strongly opposed amendments to outstanding orders extending from month to month the shut-off dates for such items as metal furniture, jewelry, and the long list of articles which, according to M-9-c as originally issued, were forbidden copper after December 31, 1942. Strong opposition was also voiced against the laxity with which appeals to exceed the shut-off dates and limitations on use of critical materials were granted, especially by the administrator of M-9-c and by the Consumers' Durable Goods Branch.

The above Senate report is incorrect in its implication (pp. 9-10) that domestic laundry equipment production would have been shut off earlier had jurisdiction over the industry not been transferred from the Consumers' Durable Goods Branch. Prior to that transfer, the chief of the Consumers' Durable Goods Branch had circulated for final concurrence a draft of an order that would have continued production of washing machines until July 1, 1942. The 5-page memorandum in support of continuing such production so long, which accompanied the draft order, was written by a former employee of one of the washing ma-

The War Production Board also was very lax in enforcing compliance, permitting considerable material to be wasted through its unwillingness to prosecute plain violations of its orders.⁴ The most significant area of waste was in the form of complete disregard of provisions in priority orders and regulations, issued in the Spring and Summer of 1941, forbidding the accumulation of abnormally large inventories.⁵ After firms had committed such violations, the WPB generally granted appeals or extended prohibition dates in orders so that the firms might use up their excessive inventories on their normal civilian products.⁶ No system for controlling the flow of materials will succeed without insistence upon compliance.

chine companies, who had been very active in obtaining exemptions for such companies from WPB orders through appeals. The vice-president of one of the large washing machine companies had, as a government representative prior to the transfer, likewise strongly urged within WPB the continuance of washing machine production at least until the end of June. It was only after the Labor Division vigorously complained about such complete control of the branch by the industry following the appointment of two dollar-a-year men from the industry to head up the branch, that the industry was transferred out of the branch.

⁴ In the middle of April, 1942, for example, a large concern was making refrigerator trays out of pure copper sheets coated with tin, in plain violation of one priority order and presumed violation of another. The Compliance Branch of WPB admitted the violation but refused to prosecute the case on the strange grounds that the company previously had been

using aluminum for such trays.

⁵ Order M-9, issued May 29, 1942, stated: "... no person shall hereafter knowingly deliver Copper to any customer, and no customer shall accept delivery of Copper in an amount which will increase, for any calendar month, the customer's inventory of such material in the same or other forms, in excess of the quantity necessary to meet required deliveries of such customer's products, on the basis of his usual method and rate of operation." A similar provision was contained in Priorities Regulation No. 1, applying to all materials and issued August 27, 1941.

The widespread violation of such inventory provisions was evident from the appeals that followed the issuance of the first conservation order, Copper Conservation Order M-9-c, issued early in October, 1941. A review of the first 35 appeals cases under this order showed that 16 of the 35 had inventories in excess of 9 months' total copper consumption by these firms for the same items during the previous year. Furthermore, the inventories of these

firms were 2, 3, 4, and even 10 times their copper inventories 9 months before.

⁶ On January 8, Donald Nelson wrote and circulated a memorandum within WPB proposing that the WPB grant permission to manufacturers to use up "at a decelerated rate" all inventory beyond the raw material stage, through production and sale of products to normal customers for normal purposes. Right after Pearl Harbor he had, as Director of Priorities, extended the prohibition date in M-9-c on the use of copper for hundreds of nonessential items from December 31, 1941, to March 31, 1942, over the opposition of every other division in the OPM, thereby giving firms six months instead of three to work off inventories. In the meantime, his administrator of appeals had granted permission to companies to use up copper inventories which they had obviously accumulated in violation of the provision of M-9 quoted in footnote 5. For example, a company making heating stoves and water heaters was granted permission under M-9-c to use up all of its inventory of copper, a considerable part of which had been obtained in November, 1941, weeks after the prohibition date in M-9-c was announced as December 31, 1941, for use of copper on its product. In the case of water heaters, this company had almost tripled its inventory during 1941 until October 1941 it had enough copper for heaters to last seventeen months at its 1941 rate of consumption. In the case of stoves, it had expanded its copper inventory alAt least up to the last quarter of 1942, the WPB did not have a satisfactory system for the planned distribution either of all the available supply of any one scarce material to a definite, selected group of end uses and end products or of all the materials and components required to complete any one end product or group of products. Consequently, a completely effective mechanism for carrying out top decisions and policies regarding the distribution of materials between military products themselves and between military and essential industrial products had not been developed. Reliance was still being placed on the PRP horizontal or input method of allocating material, although an increasing number of WPB officials were becoming convinced of the need to introduce a vertical or output method of the warrants' type.^{6a}

The Production Requirements Plan (PRP) involves a long form on which each firm, plant, or department of a company states over a month in advance its materials requirements for the ensuing quarter, its previous use of such materials, and the stocks of such materials on hand along with the preference rating pattern both of its production in the past quarter and of the unfilled orders on its books. Under PRP, materials are allocated horizontally at all levels of production to each firm directly by the central control in contrast to the warrants' system whereby allocations in the form of authorizations to purchase a certain amount of materials are made by the central control to the end products' manufacturers who, in turn, pass such authorizations, or claims to materials, on to their subcontractors and so on back through the various layers of production.

The advantages of the PRP method are that it conforms fairly closely to present business practices and does not involve difficult calculations or estimations, too much paper work, or an increase in the power of one concern over another; it is well adapted for intermediate products (nuts, bolts, ball bearings, etc.) and off-the-shelf items; it is fairly satisfactory for repairs, maintenance, and operating supplies, and it provides for some degree of inventory control. However, the control of inventories under PRP has certain weaknesses. The inventory coverage is incomplete in that it does not include raw materials that have been slightly processed or materials on hand not used for articles currently being produced. Furthermore, any over-allocation of materials, which is possible since requests are made over a month in advance on the basis of estimated business and production expected for a quarter, would not be caught and corrected until at least 4 months after the allocation.

The disadvantages of PRP mainly revolve around the fact that it does not tie allocations up directly with end products and end use of produts, so that it does not lend itself to over-all policy or program determinations or to adjustments following changes in the program of end products. For this reason, it is particularly difficult under PRP to apply policy decisions to firms producing intermediate items (motors, ball bearings, and other component parts), for little is revealed from the PRP forms regarding the destination of such intermediate

most eight times during 1941 until it had enough on hand to last over a year, despite the fact that its use of copper for stove production had been declining in 1941.

^{6a} The new Controlled Materials Plan (CMP) is a vertical system of the warrants' type.

items. If a firm is producing components or end products for both military and civilian use, there is no way for the central control to determine the distribution between military and civilian items.

From PRP forms it is not possible to discover the total quantity of any scarce material contained in end products, since manufacturers do not report the metal content of purchased parts or of purchased sub-assemblies, and a completely integrated firm, covering all stages from processing the ore to selling complete end products made out of materials extracted from the ore, would report no materials requirements. In other cases, adding up totals on PRP forms would involve counting the same material in different forms twice. Furthermore, the requests for materials on PRP forms are likely to be inflated since they are based on expectations and desires rather than on actual orders alone. By keeping allocations sufficiently under requests, it is possible under PRP to balance demand and supply, but any such reduction can be only very crude in character if based solely on PRP data. Under the warrants' method, only endproduct manufactures (for military items, the prime contractors) would fill out application forms and receive warrants or authorizations to purchase materials, which warrants "trickle down" from such manufacturers to their suppliers and sub-suppliers to meet material requirements. The amount of warrants allocated to a firm would be based on bills of materials for end products and on estimated materials requirements not only for the end-product manufacturer but also for his suppliers down the line, all combined and scheduled over a period of time. In some cases, the end-product manufacturer might in effect become the purchasing agent for his parts suppliers.

The advantages of the warrants' method are that it ties allocations closely to the letting of contracts; it provides a direct means of implementing policy decisions based, as they should be, on material requirements for end products and end-user programs; it assures control at every stage of production in terms of authorized end uses and of changes in end-use programs; it permits decentralization by leaving to the government agency responsible for the program and to the end-product manufacturer most of the administrative work in connection with allocations, and it places the responsibility for scheduling the flow of materials upon those who are best qualified by experience and training to do the job; it enlists the self-interest of both the government program agencies and the manufacturers in the economical use of scarce materials and provides some check on their use of materials through comparisons between end-product manufacturers; and it permits the bulking of warrants in connection with purchases, which cannot be accomplished with preference ratings except at the lowest rating in the group of preference certificates.

The disadvantages of the warrants' method are that it is not well adapted for the allocation of materials for maintenance, repair, and operating supplies, for "pipe-line filling," for alloying materials, and for off-the-shelf items which are not ordered well in advance; it would also tend to bog down in a plethora of paper if it were applied to large products requiring only small amounts of the allocated materials (even if confined to five or ten materials); it provides no

means of inventory control; and finally it has been alleged that this method of allocations would give greater control over sub-contractors to a few prime contractors and would give greater control over allocations to the government contracting agencies, the armed services in particular, and reduce the control of the WPB over materials distribution.

A warrants' or vertical method of allocations would have to be supplemented by the horizontal method for the items mentioned in the previous paragraph, especially for those which do not carry their identity through to the end product. It, therefore, seems necessary to adopt some combination of the two methods with perhaps a separate method of inventory control. A mixture of the two methods for controlling materials has been used in England and Germany, although in both countries main reliance has been placed on the warrants' type, with allocations of a few scarce materials to end users (chiefly government departments) who give authorizations to purchase materials to end-product manufacturers (their prime contractors) who extend these authorizations back down the line to subcontractors and sub-subs.

11

The control of existing plants, machinery, and equipment by the War Production Board has been largely indirect or negative in character. The legislation setting forth the government's priority powers clearly indicates that "facilities" are included as well as materials so that legally those powers could be applied to facilities. Actually, however, the WPB has hesitated to direct owners or managers to produce certain articles or to require that existing facilities be used in a certain manner through the priority power.

New machine tools that are produced have been completely under the control of the WPB under an "E" order, and the critical new tools have been strictly allocated. For the construction of new plants or significant additions to existing plants, a project preference rating is required in almost all cases. In this way, the WPB practically controls all new investment, including even repairs that require the use of significant amounts of critical materials.

The chief means of controlling the use of existing facilities have been (1) the indirect method of refusing to grant the company priorities for materials unless those materials were to be used to manufacture certain items and (2) the issuance of L orders forbidding the production of certain items for civilian use, such as passenger cars, domestic electrical equipment, metal furniture, etc. This negative control of the use of productive facilities arose largely from material shortages and consisted mainly in telling firms what kind of manufacture they could not use their equipment for and not what kind or kinds they must use it for. It was thought that, by forbidding the normal production of a plant, those facilities suitable for war production would thereupon be converted to war work.

In numerous instances, union officials complained to industry branch chiefs and then to WPB superiors that certain plants normally producing items like

⁷ E orders are those for the purpose of controlling the distribution of equipment.

automobiles, aluminum utensils, and typewriters, were not being converted (allegedly because the owners wanted to have the plant ready to produce the regular items right after the armistice) or were not being converted fast enough because the management wanted excuses and worker pressure for continuing civilian production during an extending "transition period." In some cases, the union officials proposed that the WPB take over the idle or partially idle plants and operate them for war production in the same manner that the Government has taken control of plants because of labor disputes that were interfering with war production. However, the top officials in WPB hesitated to interfere with the freedom of owners to decide whether they should accept war work or not, and the WPB has not attempted in any official way to force firms to convert, to convert faster, or to change production processes or practices. Indeed, a number of high WPB officials stated informally during the first quarter of 1942 their fears that "too much" of American industry was being converted to war production at that time.

In L orders providing for the concentration of certain types of production in specified "nucleus" plants, the WPB has taken a step toward positive control of the use of equipment and toward the planned use of the resources of an industry. Lengthy and heated debates for 6 months in the WPB concerning the concentration of standard equipment production (except tractors and combines) in the farm implement industry, indicate the resistance of firms in an industry to any attempt to rationalize the use of its resources for maximum effectiveness in the war program, when such rationalization involves the upsetting of normal patterns and vested interests in the industry.

The closest that the WPB has come to controlling the use of facilities has been in connection with its orders closing gold mines in order to release facilities and miners for non-ferrous metal mining and its order providing for compulsory reporting of the use of existing construction equipment, for the purpose of requesting sale or lease of idle equipment or requisitioning it.¹⁰ To date the requisitioning powers of WPB have been used only for the acquisition of materials, including old equipment for use as scrap, and not for obtaining equipment for operation.

Groups within WPB have urged that priorities and concentration be applied to the use of existing industrial and construction equipment in order to conserve materials. A WPB study indicated (1) that in June 1942 the industries producing industrial and construction machinery were consuming steel at a rate of 10.6 million tons a year, (2) that the consumption of steel by these industries

^{*} One of the large typewriter concerns turned down three times contracts that Army Ordnance tried to place with it but accepted the fourth offer after the WPB industry branch finally ceased its wishy-washy attitude toward the industry and clearly informed the company that its civilian production would be ordered to cease in 5 or 6 months.

⁹ Such sentiments, for example, were expressed on a number of occasions by the Director of the Division of Industry Operations and the Chief of the Bureau of Industry Branches during that period.

¹⁰ The order also provided that new construction equipment be sold subject to repurchase for war purposes.

had more than doubled between 1939 (monthy average) and June 1942, (3) that these industries probably have one-third of all machine tools in this country, (4) that in June their tools were, on the average, being worked but 58 hours a week or about one-third of theoretical maximum capacity, and (5) that, despite this amazing degree of unutilized machine capacity, over 82 per cent of the output of these industries consisted of their usual products and less than 18 per cent was in the form of munitions items.

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A war economy requires the planned use of scarce resources and, therefore the planned use of labor, which becomes increasingly scarce as war production expands and more persons are drawn into the armed services. The management of the nation's labor supply is, in certain respects, much more difficult than the control of materials or machines, which have no feelings, no morale, and no votes.

In peace time, workers are free to work when and as they wish and employers are free to hire and fire workers as they wish, except for the standards in labor laws and the provisions in labor relations acts. In war, however, various wastes of labor and wasteful practices must be eliminated and the distribution of labor must follow the pattern called for by the war program. Wastes that should be eliminated include failure to employ a worker at his highest skill; failure to organize the work so as to conserve labor, especially skilled labor; hiring practices that discriminate against qualified workers on account of race, color, creed, or sex; the raiding of a competitor's labor supply; excessive labor turnover; actual weekly hours below the optimum work week from the point of view of production; and the use of labor for non-essential activities when such labor could be utilized in the war program. Obviously, total mobilization of manpower in a war program means not only greater central control and direction of labor but also of industry.

The effective mobilization of labor involves control of both the demand and supply sides of the labor market. On the demand side, planned use of the nation's labor supply involves direction over the location of new capital equipment, the distribution of government contracts, and the distribution of civilian production, especially under concentration programs; the exercise of some program of priorities on the use of labor, the allocation of labor between industries—or a combination of these three measures; control of the hiring of all new workers; checks on the effective utilization of labor by firms; and the prevention of discriminatory hiring policies. On the supply side, there must be control of the hours of work, the migration of labor, the training of labor for new jobs, withdrawals of labor from industry for the armed services, and the recruitment of new workers not normally employed in industry.

Until April 17, 1942, when the War Manpower Commission was established by Executive Order, the development of a labor-supply program for the nation rested with the Labor Supply Branch of the Labor Division of OPM (later WPB), which had three different chiefs within a year. Satisfactory training programs—vocational training in the schools and training-within-industry—were worked out by the Labor Division but, partly for lack of authority and funds, its other accomplishments consisted largely of paper plans and regional labor supply committees to survey the problem and make suggestions. Unfortunately, against advice within his organization, the chairman of the WPB consented to the establishment of a separate War Manpower Commission.

The WMC was very slow in getting started. Directors had not been appointed for all of its 12 regions by the middle of September, when the first meeting of regional directors was held in Washington, and it was further handicapped by Congressional restrictions on the U. S. Employment Service, which

caused that agency to lose much of its best personnel.

The fact that WMC did not accomplish much during the first six months of its existence is to be explained (1) by lack of authority, (2) by its failure to work out long-range plans and programs to meet its problems, (3) an unwillingness to make decisions and to take action within its jurisdiction, and (4) jurisdictional difficulties resulting in delays or in manpower actions by other agencies. These 4 aspects of the WMC will be discussed seriatim.^{10a}

(1) Under its executive order, the WMC was given no authority or control over individual employers or employees. Its only authority consisted of directives or statements on manpower policies issued to other Federal agencies. A number of such directives were issued following the first few meetings of the Commission but they proved to be of no great significance. Federal influence over individual firms largely rested in the Army, Navy, and Maritime Commission which let the contracts for war production, and in the WPB which granted the materials, curtailed and concentrated civilian production, and determined both the kind and location of new plants. The control over individual employees largely rested in the Selective Service System and, to the extent that wage rates and the availability of adequate housing influence labor supply, in the National War Labor Board and the Federal housing authorities.

The WMC had to accomplish its purposes largely by convincing other agencies of the wisdom of its suggestions, which the other agencies tended to judge from the point of view of their own policies and operations. The WPB, for example, declined to curtail civilian production in paper and pulp in one region as suggested by the staff of WMC in order to meet a manpower shortage in the Pacific Northwest; it delayed 3 months in issuing the order proposed by the War Department and WMC for closing down the gold mines to release miners for the short-handed non-ferrous mines in the same region; and it did not give the emphasis to labor market considerations that was requested by WMC in connection with certain concentration programs.

(2) On the other hand, the WMC had not developed over-all plans and programs to solve its problems. The Planning Service of the WMC was largely engaged in day-to-day and week-to-week activities that frequently were not

10a The Executive Order of December 5, 1942, increased the authority of the chairman of the WMC considerably and transferred the Selective Service System to the WMC.

directly related to program planning, and the operating divisions of WMC were not in a position to formulate programs into which to integrate their own activities. A program should have been developed for controlling the demand side of the labor market through plans for the distribution of new contracts according to labor market conditions, for the substitution of female for male workers especially in non-war industries, for the appropriate lengthening of hours, and for the curtailment of less essential industry in tight labor markets. It is especially important to develop programs for recruiting male labor from retail trade and service industries in order to maximize the effectiveness of local labor and avoid the disadvantages to the war program that result from in-migration. To supply new housing for one in-migrating worker requires, in terms of family dwelling units, about one ton of iron and steel, 100 pounds of non-ferrous metals, 8,000 board feet of lumber, 200 man-days of labor on the site in a tight labor market and about 250 man-days in fabricating and transporting the materials. The materials and labor requirements for the necessary community services to go with the new housing (streets, schools, water mains, public utility connections, etc.) average about as much as the requirements for the housing itself. The materials and labor cost of in-migration alone is a strong argument for planned restriction of civilian and less difficult war work in tight labor markets, to say nothing of the effect of congestion and overcrowding on labor productivity and turnover.

Over-all planning on the supply side would include programs for drawing women, older workers, and depression casualties into the labor market; for the allocation of labor between industry and the armed services, between manufacturing and agriculture, and among various firms; and for the orderly transfer of workers, especially into areas and industries where they could be more productive to the war program. For example, farmers and farm workers might be transferred from submarginal farms to farms where their efforts would be better rewarded in terms of both money and crop returns. The labor-supply problem in agriculture promises to be especially acute since farmers do not pay wages and offer advancement to match factories turning out war items.

Definite plans, programs, and policies would have enabled the WMC to attempt to accomplish its objectives through persuasion, inducements, and the use of the powers of other government agencies such as the WPB, the Armed Services, Selective Service, and the National War Labor Board. Organized labor, in objecting to national service legislation before other methods had been fully tried and proved inadequate, had a point, for the various agencies of the Federal Government already had wide powers—powers which, if properly used and coordinated under a broad program, could have helped considerably in solving manpower problems.¹¹ Following experience with such a voluntary or mixed program, the WMC would have been in a much better position to argue for national service legislation, to draft such legislation, and to operate under such legislation.

 $^{^{11}}$ Failure of WPB to control and schedule production, of course, made it more difficult for the WMC to plan and operate a manpower program.

A voluntary program for an industrial area was worked out and applied in the Summer and Fall of 1942 to Baltimore, where the problem was chiefly one of inducing large war contractors to hire Negroes. The attempt in Baltimore to have firms in non-essential activities release workers for war work in the area failed. Up to the middle of October, the WMC had not in a single case applied the policy statement, worked out jointly with the WPB and adopted by the Commission on July 22, for the curtailment of less essential production and the accompanying employment, in areas where such curtailment was necessary to fill the labor needs of war production without resort to in-migration.

The WMC and the WPB had hardly begun to tackle the problem of the planned coordination of the flow of materials and the flow of labor by the middle of October. Under WMC Directive Number 2 adopted in May, an interdepartmental Manpower Priorities Committee was established in WPB and began to function in September, but it at once became involved in jurisdictional difficulties. Whether priorities, allocations, or some sort of warrants' system would be tried in connection with the distribution of labor had not been decided, although a list of essential activities and critical occupations had been issued by the WMC for the guidance of local draft boards and local employment offices.¹² This list neither contained a schedule of priorities nor did it embody the concept of a balanced program of production by which to judge how much employment there should be in a particular industry and whether one of the "essential industries" was more in need of additional workers than another. Consequently, the lists were of little value to a program for the planned distribution of the nation's manpower.

(3) Because the WMC failed to develop a broad program of its own, it frequently found itself in the position either of being forced into action by other Federal agencies or of having other agencies performing some of its functions. Its program for "employment stabilization" in non-ferrous metal mining and lumbering in the West was suddenly adopted by the WMC early in September only after the War and Navy Departments and the Maritime Commission were prepared to institute a policy of directing their prime contractors not to hire workers from non-ferrous mines or the woods. The program for the closing of gold mines to free hard-rock miners for non-ferrous metal mining was developed by the Labor Production Division of WPB and had the active support of the War Department long before the WMC began to lend its support to the program.¹³

¹² Items in the list of essential activities such as paper and pulp production, reforestation, etc., became somewhat embarrassing to the WMC when it later wished to curtail employment in certain industries in order to release manpower.

¹³ The Commission itself never took formal action on this matter. Proposed drafts of directives to the WPB to curtail gold mining and to concentrate farm implement production out of tight labor markets were submitted to Commission members early in September and these items were placed on the agenda of the September 9 meeting of the Commission, but were withdrawn at the request of the WPB member of the Commission. The counsel of the WMC took the position that the WMC did not, under its executive order, have the authority to issue such directives to the WPB but could only adopt a statement requesting the WPB to take such actions.

Lengthening the hours of work in industries where the average work week is considerably under 48 hours is one important way of solving labor shortage problems and of reducing out-migration through larger weekly earnings stimulated by time and a half for overtime. One of the reasons that workers have been attracted away from metal and coal mining, lumbering, and other raw material production is that average weekly hours of work in the war plants producing finished munitions are in general much higher than in industries producing raw materials, fuel, and finished civilian products. In July average weekly hours in food, clothing, textiles, leather, tobacco, paper and pulp, petroleum production, sawmills, steel mills, blast furnaces, non-ferrous metal operations, etc., did not, in general, exceed 40 or 41 hours a week in contrast to such war production industries as shipbuilding, foundry and machine shop products, engines and turbines, iron and steel forgings, and aircraft in which hours during the Spring and Summer of 1942 ranged from 47 to 49 a week, with machine tools averaging 53 to 56 hours a week.

Though increased hours are an important source of increased manpower, the orders and requests for lengthening hours in lumber operations, coal mining, and non-ferrous metal mining came from the chairman of the WPB and the Secretary of the Interior in the case of coal rather than from the chairman of the WMC whose job it is to work out policies and programs for supplying additional hours of labor. The coal producers had complained to the WMC about labor shortages with the drain of their employees to war industries and the armed services, yet wage earners in bituminous and anthracite coal mining had been averaging but 30 or 32 hours a week, about 10 hours less than the average in metalliferous mining. An increase to 42 hours a week would mean a 40 per cent increase in manpower in coal mining. A lengthening of the hours in iron and steel would help to solve labor shortages in such areas as Baltimore and Buffalo, and lengthening the hours in other civilian industry would help to solve labor shortages in many other areas. Fear of the reaction of labor organizations may have been a deterrent to any request by the WMC for longer hours, although in the West Coast lumber industry it was the demand of organized labor, through the Labor Production Division, for an increase to a 48-hour week that caused chairman of WPB to order the employers to increase to that amount.

In order to relieve labor-shortages for war production in Seattle and Buffalo, the Manpower Section of the Civilian Personnel Division of the War Department induced the Quartermaster in the Fall of 1942 not to let important clothing and other contracts to those and other tight labor areas. As in so many instances, the War Department had taken the lead in this manpower policy only to find regional directors of the WMC objecting and attempting to obstruct a policy of curtailing in tight labor areas the volume of contracts for less difficult, standard articles, which could readily be produced in such places as New York City where at the time there was an estimated unemployment of 400,000. And it has in general been the various divisions of the WPB, especially the Labor Production Division, rather than the WMC that have taken the lead in urging curtailment and concentration of civilian production in order to release needed manpower for war production.

(4) Jurisdictional difficulties arose for the WMC largely because, as a government agencies' agency, it lacked a direct relationship with and authority over individual firms and because it was slow in developing a program of its own while other older agencies, like the War Department and the WPB, took the lead in certain aspects of the manpower problem.

Two important jurisdictional conflicts that arose found the War Department and the WPB lined up against the WMC. These differences centered around (1) the proposal of the WMC to have a corps of labor-supply inspectors who, as in Great Britain, would visit plants to determine whether the labor in a plant was being efficiently utilized and whether requests for additional labor were justified, and (2) the question of what agency should determine labor priorities and allocations. The two issues were closely related and fundamental to the work of the WMC.

The War Department and the WPB took the position that any plant inspection should involve a survey of the whole organization and operation of the plant—the methods of scheduling and controlling production, the flow of materials, labor morale and labor relations, quality and quantity of output, and the use of each factor of production and, therefore, any wastage of materials, power, or equipment as well as of labor. Methods of conserving labor might be wasteful from the point of view of materials, power, or equipment, and it would be undesirable to have any government agency dealing with only one phase or factor of production making separate plant inspections.

The labor-supply inspectors would decide where employers with important war contracts were not using their labor supply efficiently so that, despite their high materials priorities, they could be denied labor priorities or allocations until they took steps to improve their use of labor. Labor hoarding and overmanning of plants was widely prevalent in the Spring and Summer of 1942 just as the hoarding of materials had been during the previous year. Despite the wording of its Directive Number 2, requesting the WPB to determine which jobs it was most urgent to fill first, the WMC staff argued that it was the duty of the WPB to determine, with the aid of the contracting services, the relative urgency of the end products and that it was then up to the WMC to determine, taking into account the employer's labor supply and his labor-supply practices along with the end-products' priority data, what the manpower priority or allocation for that employer should be. Furthermore, the WPB and the War Department wished to confine manpower priorities or allocations to war production, whereas the WMC wished to apply them to civilian production as well in order to determine, under national service legislation, from which firms labor should be drawn for war production.

There is no doubt that the power to deny additional labor to a firm would place considerable power in the hands of the WMC which could use it not only to force employers to pursue certain training, upgrading, and other labor-supply programs, but also indirectly to influence end-product production and, when coupled with priority ratings for labor in civilian activities, could be used by the WMC to curtail less essential civilian production, trade, or service activities by

withdrawing labor from them whether the WPB wished to curtail them or not. With such an arrangement, the WMC would not have had to wait and beg for 3 months while the WPB industry branch decided whether gold mines should be closed to release hard-rock miners for non-ferrous metal mining, and the WMC could have curtailed employment in paper and pulp and other civilian activities in the Pacific Northwest, despite opposition from the "industry-staffed" industry branches of the WPB.

The dangers in having separate agencies and different policies in the allocation of labor from those for the allocation of materials are obvious. Without central planning and coordination in the flow of all the various elements of production to each plant, there will be waste and confusion. The WPB was not slow to recognize the danger to its authority of any increase in the power of the WMC, especially since labor control could disregard inventories of materials, could cover a much wider area of economic activity than could control of strategic materials, and would be administered by persons, many of whom were less industry-minded and some of whom were more politically-minded than the top personnel of the WPB.

On the other hand there is a threat to the powers and jurisdiction of the WMC in the establishment of an Office of Economic Stabilization with a Director who shall formulate and develop a comprehensive national economic policy relating to prices, wages, etc., one of the purposes, of which is "minimizing the unnecessary migration of labor from one business, industry, or region to another" and who, to give effect to his comprehensive national economic policy, shall have the power to issue directives on policy to other Federal agencies.

Before the establishment of the OES, it was found that the labor-supply, wage, and price aspects of the problem in non-ferrous metals, aluminum, coal, and lumber were so tied up together that it would have been desirable to have them all subject to one final authority rather than handled by separate agencies pursuing different policies and objectives. In order to achieve some understanding, cooperation, and coordination between the separate agencies, a formal interdepartmental committee for copper and an informal one for lumber had been established. At the meetings of these committees each agency¹⁴ explained what it was doing or contemplating with regard to increasing copper or lumber production and frequently an agency was urged to take certain actions within its jurisdiction.

The control by the WMC over the labor supply and its distribution had, at the time of writing this article, been piecemeal and exercised largely through the Selective Service and the contracting services. The "employment stabilization" program for non-ferrous mining and milling and for logging and sawmill operations in the 12 Western states, adopted under WMC's anti-pirating policy, after submission to a labor-management conference, and announced September 8, could be enforced only through the prime contractors of the Army, Navy

¹⁴ The agencies represented were the WPB, WMC, OPA, National War Labor Board, Selective Service System, the War Department, and sometimes the Navy Department and the Maritime Commission.

and Maritime Commission. These three Federal agencies agreed not to reimburse any prime contractor for wages paid to workers hired from non-ferrous metals or lumber operations unless the worker had obtained a separation certificate from the U. S. Employment Service. Other employers, especially those in the industries to which the "stay put" order applied, were urged, as a means of reducing labor turnover, to insist upon separation certificates for workers who had left employment with a competitor. In coppper and lumber operations, labor turnover had been averaging over 10 per cent a month. The Selective Service System added its influence by indicating that workers leaving non-ferrous metal and lumber operations in the West would be subject to reclassification. When the gold mines were closed down, the same technique was applied.

Under a voluntary program submitted by the employers' association and the two unions in the Pacific Coast pulp and paper industry, the U. S. Employment Service was able to request and obtain workers from the industry for transfer to jobs on war production in the region.

IV

It is too early to tell what the final forms of war-time control over materials, machines, and manpower will be. Such controls will presumably be modified and improved throughout the war period. The requirement that all hiring be done through the U. S. Employment Service will be necessary for central control of manpower in connection with any national service law. There will also be need for much closer cooperation and agreement on objectives and on policies among the various agencies that place contracts and control manpower, materials, fuel, transportation, etc. In Germany, "certain agencies are entrusted with the special task of synchronizing the policies of the various authorities that place orders or are in control of labor and materials." A unified economic command is as necessary as a unified military command, and there is much to be said for the granting of orders and priorities or allocations for materials, equipment, and labor all at the same time.

Any one who has had experience with government control of materials and manpower is impressed with the complexity and magnitude of the American economy. But the difficulty of the problem is no excuse for opportunism and piecemeal planning, or for the failure to collect adequate data on which to base production planning and central controls. The size, complexity, and intricacy of the problem also help to explain the need for numerous government agencies of control with some overlapping, if not duplication. With concentration of authority and control, there is some need for the checks and balances afforded by the various viewpoints of different agencies.

¹⁶ Herbert Block, "German Methods of Allocating Raw Materials," Social Research, vol. 9 (September 1942), p. 368.

¹⁶ There are some grounds for believing that certain top officials in the WPB tended to oppose systematic collection of rather complete data for each industry and to favor opportunistic, piecemeal, action which was justified on the grounds that each industry is different, in order to forestall the development of an independent system of controls that could be continued after the war.

Such problems and difficulties, plus some additional ones, would face any attempt to continue central planning and control of the economy after the war is over. Then the immediate objectives may be less clear-cut and understandable, the criteria for judging actions less certain, the opposition of vested and selfish interests more forceful, and the need for the checks and balances of different viewpoints more compelling. No longer would the Federal Government have the prestige and power that a war government, purchasing over half the nation's production, enjoys. On the other hand, post-war planning and control would have the advantage of extensive war-time experience and of an existing staff trained in control methods and techniques. As in England, this group contains many able persons who had little prior experience with industrial or production management.

Of the need for post-war planning and control there can be little doubt. At the end of the war there will probably be over 20,000,000 workers in war industries making military articles and perhaps 10,000,000 persons in the armed services, compared with somewhat under 20,000,000 workers in non-war industries and 8,000,000 in agriculture. In other words, as many as half of the working population may have to be provided with different sort of work after the war. Such a gigantic demobilization of men in the armed services and industry will have to be planned and controlled so that manpower can be directed where it is most needed instead of having millions of men thrown onto the labor market to mill and wander around in search of work.

Many of the advantages of employment planning during the war would obtain after the peace. The need for retraining of war workers and for the rehabilitation of persons injured in combat will necessitate continuation of the Government's training program and even stricter control over employment standards and discriminatory practices. Selective Service legislation provides for the return of soldiers to their old jobs with no loss of seniority. Similar provisions for return without loss of seniority are being embodied in voluntary programs for transfer of workers to war work and in proposed national service legislation. However, many firms will have been eliminated before the war is over and many post-war jobs will not be the same as the pre-war job. The provisions regarding return with seniority will furnish post-war problems for the Government.

Above all, the monetary and fiscal policies being followed by the Government are practically assuring the continuation of central control over materials, equipment, finished goods, and prices for many years after the armistice is signed. Our money supply (cash and checking accounts) has increased almost 50 per cent in the past two years as the banks have bought 15 billion dollars worth of Government bonds by writing up that amount in checking accounts. During the fiscal year 1943 it is estimated that tax revenues and sales of government bonds outside of commercial banks will be so insufficient that from 25 to 30 billion dollars of bonds will have to be sold to and absorbed by the commercial banks through an equivalent increase in checking accounts. It, therefore, appears that by the end of 1943 we shall have a money supply from two to three times the money supply in 1941.

The consequence of such an expansion in the money supply, with half of our

production for the battlefield rather than the market, is widespread rationing and tight controls over goods and materials if the price ceilings are to continue to be at all effective. After the war, it is not likely that the volume of production of civilian items will reach the 1941 levels for some time, yet our money supply will probably be three times that of 1941. The net result will be either a "scarcity" economy with a continuation of war-time controls—priorities, allocations, rationing, control of investment, and price control—or a violent scramble for raw materials, the accumulation of excessive inventories, sharply rising prices, a speculative boom, wasteful use of resources, and all the other characteristics of a marked inflation. In short, we shall be faced at the end of the war with a choice between continuation of war-time controls and a rise in the price level of 200 or 300 per cent. A people that knows from experience what can be accomplished through central planning and direction of the economy in war-time is not likely to endure either a sharp price inflation or widespread unemployment in an uncontrolled economy.

THE NATURE OF MONEY

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This paper is devoted to a critique of the commonly accepted definition of money. A correct and unequivocal definition of money is in itself of sufficient importance to command the attention of the student of economics. The critique here presented is, however, not concerned with verbalistic polemics, but attempts to unravel some basic misconceptions and confusions which seem to lie hidden beneath the customary definition—misconceptions and confusions which have a crucial bearing on some aspects of monetary theory and policy.

I. THE TRADITIONAL DEFINITION OF MONEY

1) Money is commonly defined as a commodity serving as a medium of exchange, a standard of value, a standard of deferred payments, a store of value and a reserve for bank credit. Some elementary textbooks on money omit one or the other function from their definitions; others include additional functions or subdivisions of the functions of money. While the emphasis placed upon the several functions varies, the great majority of textbooks single out the medium of exchange function of money as primary, relegating the remaining functions to secondary or subsidiary status. Except for such minor differences, this definition of money is accepted as axiomatic. Writers on more advanced phases of monetary theory, presupposing the readers' knowledge of so elementary a proposition, usually neglect to refer to it even in passing.

If money is a commodity serving primarily as a medium of exchange, it must, of course, possess certain qualifications which make it eligible for such service. Elementary textbooks teach us that the money commodity must be 1) portable, 2) indestructible, 3) uniform, 4) cognizable, 5) divisible, 6) malleable, 7) useful, 8) of stable and high specific value. Precious metals, particularly gold, possess the largest measure of these qualities and for this reason are supposed to have superseded the earlier and less practical money commodities, such as cowrie shells, cattle, hides, etc.

The prevailing view, then, is that money is an article, a useful thing, a commodity; that this commodity must possess certain qualities enabling it to function as a medium of exchange; that it becomes money by virtue of the primary function; and that, in addition, it has some subsidiary functions. Presumably, if there were no such exchange commodity, there would be no money.

2) It can be readily understood that such an interpretation of the nature of money should have appeared convincing and self-evident when money exchanges (purchases and sales) actually involved the transference of a piece of metal, coined or uncoined, or of some other "money commodity." But it is difficult to see why it should continue to command such a wide following even today, when checks, bank notes and similar credit instruments constitute the bulk of our

media of exchange, while payments in coin account for only a small fraction of total payments; when, furthermore, all coins are token coins—their metallic content being utterly irrelevant and of no interest whatever to the recipient, who would accept a piece of paper with equal readiness; when the "exchange commodity" par excellence, gold, is not used as a medium of exchange at all, is no longer coined anywhere in the world, and its use for monetary purposes is forbidden in most countries; when, finally, these facts are not only recognized, but even emphasized by all writers on money.

The apparent contradiction between the definition of money as the *commodity* used as a medium of exchange, and the fact that we do not use any commodity at all as a means of exchange, should at once arouse doubt regarding the validity of that definition. Yet, instead of subjecting their basic concepts to rigorous criticism in an attempt to fit their definitions of money to the observed facts, most writers on the subject torture the facts into the framework of their a priori definitions.

II. THE MEDIUM OF EXCHANGE

3) The definition of money as the medium of exchange implies that the media of exchange must be money. If the media of exchange happen to be credit instruments, then these credit instruments must properly be regarded as money. Some authors following this line of reasoning therefore speak of credit money, bank money, or deposit money.

Yet it is generally recognized that credit instruments are not money, but evidences of debts (or claims) stated in terms of money. To say that credit instruments are money is to say that money is an evidence of debts (or claims) stated in terms of itself. Such a statement is obviously absurd. If credit instruments must be stated in terms of money, they themselves cannot be money. Money clearly, therefore, must be something else than the pieces of paper and other tokens (all expressed in terms of money) which are used as media of exchange.

4) It may be thought that the difficulty could be escaped by admitting that the credit media of exchange are not themselves money, but merely claims to money which because of their unquestioned and immediate convertibility into *real* money are capable of functioning as a *substitute* for money. Some textbooks, accordingly, take the position that *bank money* is not really money, even though it performs the *medium of exchange* function.

There are several objections to such a view.

In the first place, if the medium of exchange is not money, but something that circulates in the place of money, then money is not the medium of exchange.

Secondly, if the medium of exchange is not *money*, but at best a *money substitute*, the question remains: a substitute for what? What is the *real* money commodity?

If it be answered that money is that into which the credit media of exchange are convertible, we are once more trapped in a *cul de sac*. Though there is apparent historical justification for regarding the power of credit instruments to perform the medium of exchange function as resting upon their convertibility

into the money commodity (gold, silver, etc.), the present-day situation clearly does not support such a view. Credit money today is convertible, not into any money commodity, but only into whatever the government decrees to be a legal tender in the payment of debts. Such legal tender universally consists of central bank credit in one form or another, and of government note currency, usually—like bank notes—in the form of a promise to pay a certain sum of money, and always stated in terms of money.\(^1\) In other words, credit money is convertible only into other credit money.

The contention that the actual media of exchange (credit instruments) are but substitutes for the real media of exchange (money) into which they are convertible, only serves to make confusion worse confounded. Money, apparently, is nowhere to be found. One is led to the conclusion that there is no money, but only money substitutes—credit media of exchange—unless the latter are defined as money. And that course is foreclosed by the uncomfortable fact that media of exchange must be stated in terms of money and, consequently, cannot be money.

5) Some writers, unwilling to include all actual exchange media in their definition of money, yet unable to exclude them all from it, settle on a compromise course. They treat, by implication at least, all legal tender media of exchange as money, relegating other currency, especially check currency, to the status of substitute money. Justification for such procedure would seem to lie in the fact that the "money" into which credit media of exchange are convertible is legal tender currency.

Once more, however, logical difficulties force a rejection of such a view.

In the first place, there remains the fundamental difficulty that all legal tender media of exchange today are credit instruments (or token coins) stated in terms of money and, therefore, cannot be money themselves.

Secondly, it is conceivable that the state may not confer legal tender powers upon any of the means of payment. It is true that today every state has endowed some currency with legal tender power, but, after all, "the development of the legal tender concept is a comparatively recent phenomenon." Money was used and talked about long before there was a legal tender. Certainly it could not be held that money would not, and did not, exist in the absence of legal tender laws.

6) One other consideration casts doubt on the validity of the proposition that

2 Nussbaum, Arthur, Money in the Law, 1939, p. 44.

¹ Nor can coins be regarded as the money commodity, or *real* money, into which the credit media of exchange are convertible, since these coins are without exception token coins containing an amount of metal worth less than their face value and circulating entirely by face value. Therefore, like credit instruments, they must be regarded as media of exchange *stated in terms of money*—and not as money itself—even if they possess unlimited legal tender power.

³ The same objections must be leveled against Knapp's definition of money as anything which the state accepts in payments to itself. Today payments to the state are made predominantly by check. Again, there was a time when the state was non-existent, or at any rate did not receive payments other than payments in kind. Yet money undoubtedly existed even when no payments were made to the state.

money is a commodity functioning as the medium of exchange. The notes and checks which are our actual media of exchange can hardly be regarded as commodities. Checks may be "useful" as devices for transferring purchasing power from one person to another, but the material of which they are made is obviously not useful or valuable except in a sophistic sense. Banks hand them out free of charge. If these credit instruments are, nevertheless, regarded as the *objects* endowed by law or custom with a value which enables them to function as media of exchange, this is simply due to a confusion of the amount of money indicated on the face of the credit instrument with the instrument itself. It would be tantamount to regarding a freight car loaded with gold as more valuable than a freight car loaded with coal. The conveyance itself is, clearly, something else than the "value" which it conveys.

Furthermore, it is quite possible to conceive a monetary system which does not include any thing passing from hand to hand as a medium of exchange. Even today a large volume of payments is made, not by the exchange of tangible credit instruments but by offsetting bookkeeping entries. Payments between banks in the United States are largely effected by credit and debit entries on the books of the Federal Reserve Banks. The Giro system which is widely used in central Europe does not involve the passing of credit instruments. If such a system were perfected to the extent of doing away with all tangible media of exchange and if central bank book credits were declared to be the only legal tender, then certainly it could not be held that the medium of exchange is a commodity, an article or a thing. According to the customary definition of money there would then be no money, since there would be no commodity or article circulating as a medium of exchange. Obviously, however, this could not be the case, since debits and credits on the books of the banks (as well as prices and debts generally) would still have to be stated in terms of money, even as today.

7) These considerations lead to the conclusion that money, whatever it may be, is not the medium of exchange. Media of exchange, or means of payment, are debits and credits, usually (though not necessarily) evidenced by tangible credit (or debt) instruments. Credit instruments possess varying degrees of negotiability or circulation power. Those endowed with the highest degree of circulation power—the most current credit instruments—are currency. Currency, in turn, may or may not possess legal tender quality.⁴ Finally, credit instruments—the tangible evidences of debts and claims—may be made of any material found convenient for the purpose—paper, metal, wood, porcelain or anything else. The material is entirely irrelevant to the basic *credit* nature of the means of payment. A credit instrument made of copper, silver or gold cannot be money any more than a legal tender note or a traveller's check. The mere fact that a certain commodity, e.g., gold or silver, may be employed as the material of which credit instruments are made does not warrant the definition of such a commodity, or of the credit instruments made of it, as money. A correct definition of money, therefore, must not imply that money is the medium of exchange nor that the medium of exchange is a commodity.

⁴ Legal tender power, however, need not necessarily be attached to a tangible thing, but may equally be conferred upon intangibles, such as book credits with central banks.

III. THE STORE OF VALUE

8) Value may be stored in the form of real property, chattels, rights of all descriptions, or in the form of current media of exchange. Only value stored in the latter form is, or could be, held to be money, for otherwise all commodities, all things of value, would have to be called money. For this reason the store of value function of money is generally thought to derive from the medium of exchange function. But if the medium of exchange is not money, then it follows that money cannot be the store of value (in the sense of media of exchange) either.

Writers on money who do not regard credit currency as *money* frequently point out that the use of money as a store of value has become unimportant in the Western world, where people generally store their value in the form of securities or bank deposits. Usually they turn to the Orient for illustrations of the use of money as a store of value. In India, for instance, people are said to insist on hoarding money—gold and silver.

On what grounds can such metal stores be called *money*? When the Indian ryot purchases a silver ornament or a few ounces of silver bullion at the bazaar, he buys not money, but a commodity which in time of need he can sell again—which he can reconvert into perhaps more or less of the same currency in which he paid for it. It so happens that age-old custom impels him to invest his surplus funds in precious metals rather than in real estate, bonds or savings accounts preferred by his more gain-loving occidental fellowmen.

When, on the other hand, he hoards coins, he merely amasses a supply of media of exchange, representing purchasing power by virtue of their nominal money value, and not because of their metallic content. That the Indian peasant mistakenly believes the value of his coin hoard to lie in the metal of which the coins are made, and that, consequently, he sometimes refuses to hoard bank notes or other paper currency which would serve his purpose equally well, (especially if they possess legal tender power), proves only that he shares the misconceptions regarding the nature of money prevalent among economists.

Sometimes it may indeed prove wise to hoard coins rather than bank note currency or bank deposits, because of an anticipated depreciation of the latter types of currency due, for instance, to bank failures; or because of an expected rise of the metal value above the face value of coins resulting from upward revision of the mint price of metal or from abandonment of the "metal standard." In the first case, the preference for coin is but an expression of a demand for legal tender currency, in the second case it represents speculation in the metal of which the coins are made. When only token coins are available such speculation would naturally lead to purchases of the metal in the market, which would be cheaper than the hoarding of coins.

Whatever money may be, it is *not* the commodity serving as the store of value, even as it is not the commodity serving as the medium of exchange, or currency.

⁵ It is, of course, perfectly possible for the abandonment of the "metal standard" to be attended by a decline in the price of the metal in question. Germany's abandonment of the "silver standard" and Sweden's temporary suspension of the "gold standard" during the World War may be cited as examples.

Conversely, currency, whether used as a medium of exchange or as a store of value, cannot be defined as money without involving an obvious contradiction. For if currency were defined as money, a new name would have to be invented for that in terms of which currency must be stated.

IV. RESERVE FOR BANK CREDIT

9) If money is not a medium of exchange and, therefore, not a store of value, it cannot be the commodity serving as bank reserve, either. The thought that banks must keep a reserve of "real" money in order to be able to convert their notes and other credit instruments circulating as money "substitutes," is obviously a carry-over from the time when such bank currency actually had to be convertible into metal, and when metal was universally believed to be money. Today banks must still maintain reserves since they must still be able to assure the convertibility of their obligations, but these reserves do not take the form of

metal nor, as a rule, even of any kind of tangible currency.

10) Any commercial bank must always be ready and able to convert its obligations (deposits) into such other means of payment as its creditors may legally demand. Demand for conversion is most frequently demand for a deposit with another bank. Bank A, let us say, is asked to convert a part of its deposits into deposits with Bank B. Bank B, in turn, will be willing to create the desired additional deposit liability only in consideration of a sufficient inducement. Quantitatively, the most important inducement which Bank A can offer to Bank B are claims upon the latter. In other words, conversion of bank deposits is largely effected through "clearing." If Bank A cannot offer Bank B a sufficient amount of claims against B, it could offer a claim against itself instead. More frequently, however, Bank B will want something better than a claim on A. It will want a claim against banks in general, or generalized bank credit. Central bank credit is such generalized bank credit. Therefore, conversions of bank obligations, in so far as they cannot be effected through clearing, are accomplished through transfers of central bank obligations.

Demand for conversion of bank obligations may also be demand for legal tender means of payment. The bulk of legal tender currency (except coin) consists of notes issued by the central bank—again, central bank obligations.

The bank's ability to convert its obligations into whatever the creditors may demand is, therefore, assured as long as it has a sufficient supply of central bank obligations or even the power to obtain such obligations at short notice, for instance, by rediscounting. For this reason banks maintain primary reserves in in the form of central bank deposits, and secondary reserves in the form of assets readily convertible into central bank deposits.

Neither of these reserves could in any sense be regarded as money—the commodity serving as bank reserve. Secondary reserves are securities—interest bearing credit instruments. Primary reserves are demand deposits. They are neither commodities nor money, but demand obligations stated in terms of money. Bank reserves, then, consist of central bank credit, not of money; and money cannot be defined as the commodity serving as bank reserve.

11) This conclusion might be considered irrelevant on the ground that the reserves, which according to the textbooks consist of money, are not the reserves of commercial banks, but those of the central bank itself; that granting the fact that commercial bank reserves are but another form of credit—central bank credit—these reserves, in turn, must be secured by reserves of real money, if the whole credit structure is not to collapse.

If bank reserves are required to assure convertibility of bank credit, and if central bank credit represents the highest stage of conversion through which a credit instrument may be carried, then the question naturally arises: why should central banks maintain any reserves at all? Legal tender central bank obligations (whether in the form of deposits or notes) are by definition not convertible into anything but themselves. The central bank could always meet any demands for conversion of notes or deposits by giving its creditors again notes and deposits. Any "reserve" under such circumstances would seem to be, and actually is, entirely superfluous and fictitious. A central bank reserve consisting of central bank credit could, moreover, not be regarded as the money commodity any more than commercial bank reserves which consist of the same intangible central bank credit.

Central banks, nevertheless, maintain reserves, not because they must be able to convert *money substitutes* into *real money*, but because as a general rule they are expected to maintain convertibility of domestic currency into foreign currencies at a fixed, or at least at *some* rate of exchange. For this reason central bank reserves consist largely of claims upon foreign banks and central banks.

A reserve consisting of gold would, of course, answer the same purpose as long as all countries are prepared to buy and sell gold at a fixed price, for then the possession of gold becomes synonymous with the power to obtain foreign exchange. Under the so-called international gold standard a majority of all countries actually had established a fixed price for gold and central bank reserves could, therefore, take the form of gold. Gold was a means to an end, the end being conversion of domestic into foreign money claims. As long as there is a "gold standard," gold may, for brevity, be identified with these foreign money claims. It functions as a sort of international money claim. But gold as such is, of course, a commodity bought and sold, like any other commodity, at a price, i.e., in terms of money. Price being value in terms of money, money could have no price and, therefore, gold (a commodity bought and sold at a price) cannot be money. Even the staunchest metallist could not regard gold bullion as money. Central bank reserves, then, again are credit instruments. They are claims stated in terms of foreign money, but are not themselves money.

V. THE STANDARD OF VALUE

12) If money is neither a medium of exchange, nor a store of value, nor a reserve for bank credit, what is money?

Textbooks tell us that money is also the commodity serving as a standard of value and as a standard of deferred payments.

Apparently we are to understand that a distinction must be made between

these two functions. The standard of value supposedly serves as the common denominator in terms of which we express the value of commodities; it enables us to put prices on commodities. The standard of deferred payments, on the other hand, permits us to use a common denominator for debts and claims.

Now, debts and claims arise from contracts involving valuations of commodities. In so far as these valuations are made in terms of the standard of value, the debts and credits must also be stated in terms of the standard of value. In other words, the standard of value is also the standard of deferred payments and therefore is the standard of deferred payments. To say that money is the standard of deferred payments in addition to being the standard of value is very much like saying that the kilogram is a standard of weight and a standard for contracts to deliver a certain weight of something in the future.

The definition of money as the commodity serving as the standard of value and standard of deferred payments is tautological. There is no separate standard of deferred payments. Moreover, if there were a standard of deferred payments in addition to a standard of value, one or the other would have to be something else than money. And yet money is asserted to be both.

13) The process of elimination followed up to this point leads to the conclusion that money must be the standard of value and that it cannot be anything else. The standard of value in terms of which we state prices and debts is money. To assign the same name to the means of payment would involve a confusion in concepts, since, as shown before, the means of payment are not the same as the standard of value, and must themselves be stated (like all money claims or debts) in terms of the standard of value. But to deny the name money to the standard of value would be simply quibbling about terms.

While money is certainly the standard of value, it remains to be seen if the standard of value can be a *commoditu*.

14)⁷ By definition, a standard is a measure of things, a commonly accepted unit in terms of which certain characteristics such as length, weight or value can be measured. The extent to which an object possesses the characteristic of length could be expressed by saying that it is twice as long, or half as long as some other object. A difficulty, however, would arise if the length of the reference object is not known to the person to whom the length of the first object is to be conveyed. To obviate this difficulty, the relation between any particular length or distance and any other length or distance is always expressed in terms of a standard unit of length which is universally known and which, therefore, can promptly be translated into the length of any object. To say that an object has a length of one meter, is to say all at once that it has twice the length of an object half a

⁶ Cf. Professor F. M. Taylor's criticism on the same point in his Some Chapters on Money, 1906, p. 29. However, he denies the separate existence of a standard of deferred payments on the ground that any contract must be stated in terms of the things to be delivered. Under a money contract, money must be delivered. He thereby identifies the standard of deferred payments not only with the standard of value, but also with the medium of exchange.

⁷ Sections 14-17 inclusive are based on arguments presented in Murad, A., The Paradox of a Metal Standard, 1939, Ch. 8.

meter long, half the length of an object two meters long, one-tenth the length of object ten meters long and so on. The standard unit of length, then, expresses the length of any object relative to the length of any and all other things.

Similarly, the standard unit of value expresses the relative degree to which a thing possesses value. The only kind of value which such a standard unit could express is, of course, exchange value-or the power of that thing to command other things in exchange for itself. The purchasing power of, say, a bushel of wheat could be expressed by saving that it could be exchanged for two bushels of corn. However, this would mean nothing to someone who does not know to what extent a bushel of corn possesses exchange value, or the power to command other goods. Here again, it is necessary to express the degree of exchange value (purchasing power) possessed by any particular commodity in terms of the values of any and all other things possessing exchange value-or in terms of all other commodities. This is accomplished by expressing exchange value in terms of standard units of value, even as length is expressed in terms of standard units of length. To say that a bushel of wheat has an exchange value of one unit (e.g., one dollar), is to say all at once that it has an exchange value twice as large as that of a commodity with an exchange value of half a unit (fifty cents), half as large as that of a commodity worth two units and so on. The standard unit of exchange value or purchasing power, then, expresses the exchange value of any commodity relative to the exchange values of any and all other commodities. It expresses exchange value in general, or command over commodities in general.8

These observations make it clear that standard units are always magnitudes of the characteristic which they are employed to measure; they are never things possessing these characteristics. The standard unit of length (footlength, meter, etc.), is a certain length, not an object possessing that length. The standard unit of exchange value (e.g., dollar, pound, franc), is a certain exchange value or a certain degree of command over goods in general, not a commodity possessing that exchange value or command over goods in general. The standard of value could under no circumstances be a commodity.⁹

15) Nevertheless, the thought that the standard unit of length is some thing possessing length and that the standard unit of value is some thing possessing exchange value is deeply imbedded in our minds. Some of the familiar standard units of measurement even bear the names of things or objects—as foot, grain, ton. This identification of the standard unit with a thing is primarily due to the fact that a common unit of measurement originally had to be derived from some thing which was universally known and which possessed the relevant characteristic in a fairly uniform degree. For instance, the length of the foot of a grown man is known to everybody and since the variations in the size of feet are not very great, people in a more primitive age could express the length of any object by comparing it with their feet. Thus, the "foot" became the standard unit of length. To have insisted that the standard unit was not the "foot," but the

⁸ Ibid., pp. 176-177.

⁹ Ibid., p. 183.

"footlength," would have seemed to them, as it would to most people today, pointless quibbling. In practice, the distinction may actually be unimportant. While in the quest for greater exactness later generations have transformed the originally vague concept of a normal or average foot into a more precise concept of length and no longer use a real foot to measure length, the "foot" is still approximately the length of a man's foot.

To establish a standard unit of exchange value the same procedure would have to be followed. The exchange value of a fairly uniform commodity known to all members of the community is chosen as the standard unit of exchange value. Thus, in a pastoral society, where practically everybody is raising sheep, the exchange value of a sheep may be used as a common denominator for all exchange values. An ox, then, is worth ten sheep, a pound of gold is worth 100 sheep, and so on. The "sheep" has become the standard of value—and again, it might sound like hair-splitting to insist that it was the exchange value of a sheep, not the sheep itself which had become the standard.

The importance of the distinction will, however, reveal itself upon further development of the examples cited above. The "foot" which has become the standard unit of length is a length familiar to everyone. Now, if it were supposed that a certain vitamin diet doubles the size of feet, it would be quite natural and correct to say that the average foot measures two "foot"—or two standard units of length. To insist that the actual (average) foot is the "foot," would, in fact, be to change the standard unit of length pari passu with the changing length of human feet. Fortunately, no one insists that the standard unit of length is a real foot or the length of a real foot. The average length of feet undoubtedly fluctuates, but these fluctuations do not in any way affect the "foot."

Similarly, the "sheep" which has become the standard unit of exchange value, is a value, a degree of command over goods, familiar to everyone. It expresses command over one sheep or one-tenth of an ox, or one-hundredth of a pound of gold and so on. Now, suppose that a disease reduces the number of sheep, so that the exchange value of sheep is doubled. A sheep would now be worth two "sheep"—or two standard units of purchasing power.¹⁰ To insist that the actual (average) sheep is the "sheep," would, in fact, be to change the standard unit of value pari passu with the exchange value of the sheep. Since the exchange value of sheep, or of any other commodity, is subject to continuous variation, this would mean that the standard unit of exchange value would have to be changed continuously.¹¹

Moreover, if the community has outgrown the pastoral stage, most people will no longer be familiar with the value of a sheep. The change in the purchasing power of the sheep would have to be announced by some public authority—and the only way this change could be announced would be by reference to the already established standard unit of value. The new "sheep" would have to be expressed as two old "sheep." (Similarly, if the prevailing average length of feet

11 Murad, A., The Paradox of a Metal Standard, 1939, p. 180.

¹⁰ Cf. Turgot's example (Reflexions sur la Formation et la Distribution des Richesses, 1770), quoted by Nussbaum, Arthur, Money in the Law, 1939, p. 6, n. 25.

were accepted as the standard unit of length, this average length would have to be conveyed to the people as a ratio of the already established standard unit. The new "foot" would be declared to equal two old "foot.") Since the only purpose of a standard unit is to provide a commonly accepted measure of a particular characteristic, there would be no point in making such a change which could be accomplished *only* by reference to an already established standard unit; and it is quite clear that the *established* standard unit is *not* the average length of feet or the exchange value of a sheep (or of any other commodity).

16) There are some important aspects in which the parallelism between the

standard units of length and of value does not hold.

A. The standard unit of length is a constant, static magnitude of length. A "foot" means the same to us as it did to our forefathers. The standard unit of value, on the other hand, is a changing, dynamic concept. A dollar does not mean the same to us today as it did ten years ago or as it did to our forefathers. Today, let us say, it represents command over ten cigars, or two pounds of butter, or one theatre admission, etc. All these commodities, however, are subject to value fluctuations—and since their exchange values are expressed in terms of dollars (or prices), any change in that exchange value must be expressed by a changing price. Any alteration in the price of even a single commodity, in turn, will change the amount of purchasing power expressed by one dollar. Such a change in the "value" of the dollar would be infinitesimal. People would say that the dollar has remained unchanged, but that this or that particular price has changed. But if material shortages or intensified demand cause the exchange values of many commodities to rise successively, the amount of purchasing power expressed by one dollar will diminish noticeably and after a while, the "value" of the dollar will be said to have fallen. Conversely, if decreased demand and abundant supplies set off a chain of price decreases, the "value" of the dollar will appear to have risen. While from one day to the next a dollar expresses approximately the same purchasing power, its meaning may change drastically over longer periods of time. Rip van Winkle, awakening from his twenty years' sleep, would find his concept of "foot" unchanged, but he would have to learn from scratch the meaning of "dollar."12

B. The "foot" conveys a precise idea of length. A distance of one foot can have precise meaning because it is always the same. On the other hand, the fact that the amount of purchasing power expressed by the standard unit of value is continuously modified as a result of the interplay of all changes in the relative values of goods, implies that this standard unit cannot establish a precise concept of a definite magnitude of purchasing power in the minds of the people. The most that can be expected of a standard of value is to signify to the individual an approximate degree of command over goods.¹³

C. Because it is precise and unchanging, the "foot" can be embodied in a concrete measuring instrument—a footrule. On the other hand, the standard unit of value could not possibly be embodied in a concrete measuring instrument,

¹² Ibid., p. 180.

¹⁸ Ibid., p. 181.

e.g., a sheep or a piece of gold. The exchange value of a piece of gold fluctuates continuously; and while the standard unit itself expresses a continuously fluctuating amount of exchange value, there is no reason to assume that the two would fluctuate identically. Even if it were conceivable to find a commodity with an exchange value varying directly with the exchange value expressed by the standard unit, it would still make no sense to employ it as a measuring instrument since its exchange value would have to be determined by recourse to the market. It could not operate as a gauge of continuous and permanent applicability. It would be comparable to a footrule of ever-changing length which has to be continuously adjusted to an ever-changing "foot." Recourse to the market alone can give us from one instant to the other the necessary corrections and adjustments for our concept of value. There is neither any reason nor any opportunity for applying a gauge or measuring instrument of value.¹⁴

17) Summing up these general and specific characteristics of the standard

unit of value, the following definition may be formulated:

The standard unit of value is a vague concept of an ever-changing magnitude of purchasing power which is not capable of embodiment in any concrete measuring instrument.¹⁵

On no account, therefore, could the standard of value be regarded as a commodity, such as sheep or gold. Gold could certainly not be the standard of value any more than it could be the standard of length or weight. These standards must be a unit of value, a unit of length, a unit of weight, respectively. Nor could gold (or any other commodity) be the material measuring instrument of value (as it could be the measuring instrument of length or weight) since the exchange value of gold is not stable vis-a-vis the standard unit of value and since that standard unit itself is a constantly changing magnitude.

The identity between the value of gold and the standard unit of value under the so-called gold standard is, of course, simply the product of a price fixing arrangement. As long as the monetary authorities stand ready to buy or sell unlimited quantities of the metal, they can actually bring the fluctuations in the value of gold into conformity with the fluctuations in the magnitude of value expressed by the standard unit. This results in making the standard of value a stable and exact expression of command over gold, not over commodities in general. Certainly it does not make gold the instrument for meauring value. 16

18) The thought that money is an abstract concept of value, not representing any particular commodity or represented by any particular commodity, is not new. Perhaps the first reference to it was made by Plato who, explaining the economic organization of the city-state, stressed the need of money as a symbol for the sake of exchange.¹⁷ The "moneta imaginaria" in terms of which media

¹⁴ Ibid., pp. 183-187.

¹⁵ Ibid., p. 187.

¹⁶ Ibid., pp. 188-189.

¹⁷ Cf. Monroe, Arthur E., Monetary Theory Before Adam Smith, 1923, p. 5; Nussbaum, Arthur, op. cit., pp. 8-9, n. 31. Professor Nussbaum suggests that Plato did not use the term symbol in the abstract sense at present associated with the term, but that he simply indicated "that money, technically appearing as a token, is the customary medium of

of exchange were customarily tariffed between the 13th and 18th centuries again indicates a recognition of the abstractness of the measure of value. Debts and claims could be stated in terms of moneta imaginaria, and coins—the media of exchange—were decreed to be valid tokens for the transfer of purchasing power expressed in terms of moneta imaginaria.18

In modern literature the concept of the abstract unit of value appears with increasing frequency under various names, such as "unit of value." "unit of account,"20 or "money of account."21 This abstract unit whether it be named the dollar, the pound sterling or anything else is, of course, the standard unit of value, or standard of value,22 in terms of which prices, debts and credit instruments (including currency) are expressed. Nevertheless, these same authors who recognize the abstractness of the standard unit of value which is money, still insist on reserving the term money to designate the means of payment. This use of terms is unfortunate since, as pointed out above (section 13), it leads to a confusion of concepts, if not in the minds of the writers themselves, certainly in the minds of the readers.

19) Mr. Keynes, for instance, opens his Treatise on Money by stating that "Money-of-Account, namely that in which Debts and Prices and General Purchasing Power are expressed, is the primary concept of a Theory of Money,"23 and later says that "the age of Money had succeeded to the Age of Barter as soon as men had adopted a money-of-account."24 He then proceeds to call cur-

exchange." Even if this interpretation were accepted as correct, the question still remains; a token of what? If money is regarded as a commodity it must be held to be the equivalent in exchange, rather than a token assuring the future delivery of equivalent value.

18 Cf. Nussbaum, op. cit., pp. 10 ff.

Professor Nussbaum maintains that in spite of the apparent tariffing of coins in terms of an abstract unit, "the value of the coins did not depend on the value of the unit, but the value of the unit was determined by the value of the coins." (p. 11) It is true only that the metal contained in the coins had a value independent of the relation arbitrarily established between the coin itself and the abstract unit. If that value happened to be greater than the tariffed value of the coin, then, of course, the coin would be clipped or convefted into bullion. To avoid such tampering with the currency, the coin had to be "raised" to bring the market value (in terms of imaginary units) of the metal contained in the coin into line with the nominal value (also in terms of imaginary unit) of the coin. Thus it seems that the imaginary unit was adjusted to the metal value of the coins. But when the nominal value of the coin exceeded its metal value, then the value of the coin was clearly determined by the value of the imaginary unit. As long as tariffed coins circulated as currency, i.e., by face value, their value was derived from the imaginary unit.

19 E.g., Knapp, Georg F., The State Theory of Money, 1924; Wagemann, Ernst F., Allgemeine Geldlehre, 1923.

²⁰ E.g., Helfferich, Karl, Money, 1927; Feavearyear, A. E., The Pound Sterling, 1931.

21 E.g., Keynes, John M., A Treatise on Money, 1930; Hawtrey, R. G., The Gold Standard in Theory and Practice, 3rd ed., 1933.

²³ Keynes, op. cit., Vol. I, p. 3.

24 Ibid., p. 4.

^{2 &}quot;No more can be said than that 'dollar' is the name for a value which, at any definite moment, is understood in the same sense throughout the community, and since goods and services are evaluated in terms of the dollar, that unit is a measure or a standard of value." Nussbaum, op. cit., p. 6.

rency (or the *money things*), Money itself.²⁵ But, by his own statement, Money-of-Account (the standard unit) is fundamental to the existence of a money system. It is possible for a money system to exist without *Money-Proper* (tangible media of exchange), but *Money-Proper* could not exist without *Money-of-Account*, since it "derives its character from its relationship to the Money-of-Account." Accordingly, it would be possible for a money system to exist without Money itself. Mr. Keynes' meaning is, of course, quite in line with the thesis of this paper, but his terminology seems unfortunately confusing.

If the abstract unit of purchasing power which is the standard of value is the decisive criterion on which the existence of a money system depends, then logic demands that it be given the name "money." To insist upon a terminology which reserves that name for the tangible media of exchange which are not essential to the existence of a money system and which themselves must be stated in terms of money, is to be subservient to a custom rooted in multiple confusion

and is, to that extent, to perpetuate that confusion.

Not only is the designation "money" for the abstract standard unit of value a logical one; it is also one that agrees with common usage. People use the term "money" when they mean currency as well as when they mean the standard of value. The popular confusion of these two distinct concepts, implied by attaching the same name to both, is not only natural in view of the confusion which pervades monetary literature, but is probably also innocuous. It is not important that the proverbial man in the street should have a correct understanding of the complexities of money. But there is no justification for the argument that even economists should continue to use the term money for coins and paper currency on the ground that it is generally used in that sense. People generally use the term money also when they mean the standard unit of value. express prices in money, they state debts in money, they are concerned about the value of money, they bargain for money wages. The man who bargains for money wages is hardly concerned with the specific method of payment. He will take his wage in coin, in notes, in checks, sometimes in credits with the bank or the company store, or even in merchandise. On the other hand, the worker is very much concerned with the value of money as indicated by recent widespread demands for wage increases to meet the higher cost of living. The "man in the street" would probably be much more baffled if he were told that he is bargaining not for so much money a week, but for so many ideal units or units of Money-of-Account, than if he were told that his weekly pay check is not money, but a credit instrument stated in terms of money, or if he were told that his check is not money, but currency.

Money is certainly that in which prices are expressed and debts and claims stated. The value of a thing is stated in terms of money—dollars, pounds, francs, etc., not in terms of coins, notes, checks or book entries. The dollar, then, is money, not the coin, note or check stated in terms of dollars and it seems unnecessary and unreasonable to deny the designation money to the former and to reserve it for the latter.

²⁵ Ibid., p. 3.

²⁶ Ibid., p. 3.

20) The distinction between the standard unit of value and the medium of exchange, and the application of the term money to the former, also helps to clear up some common and glaring historical misinterpretations. We are told, for instance, of the cattle money of antiquity and are expected to believe that the ancients used cattle, sheep and other domesticated animals as media of exchange. Certainly it does not show great reverence for the high civilization of the Greeks to imply that they were too unintelligent to find a commodity more highly endowed with the qualities of portability, indestructibility, divisibility, uniformity, etc.,—in short, the qualities required of an exchange commodity—than an ox. Oxen are certainly not uniform. Hercules himself could not have carried an ox very far; dividing the ox means to destroy him. In fact, the only requirement which the ox possesses in a high degree is that everyone can recognize it as an ox.

It should be obvious that oxen were never used as common media of exchange, ²⁸ but as a common measure or standard of value. Every community entering the era of indirect exchange had to derive its standard of value from the value of a commonly known commodity. In a cattle raising community the value of cattle naturally became the standard—hence, the *cattle money* of the Greeks. Only the confusion of the standard unit of value with the medium of exchange can account for the suggestion that the Greeks carried oxen in their purses. We know that cattle were used as the standard unit of value even at a time when coinage was already firmly established.²⁹

VI. SUMMARY AND CONCLUSION

21) It has now been shown that it is erroneous to regard the media of exchange (which are also used as a store of value) as *money*; that these media of exchange are all tokens of claims or debts in amounts determined by reference to money; that money is the standard unit of value; that the standard unit of value is an abstract concept of an ever-changing magnitude of purchasing power and that it could never be a commodity nor even the purchasing power of a commodity.

Therefore, the definition of money as the commodity functioning as a medium of exchange, a standard of value, a store of value, a standard of deferred payments and a reserve for bank credit is wrong. It harbors two fundamental mis-

conceptions.

The first of these is that money is both the medium of exchange and the standard of value (all other "functions" are derived from these two). The means of payments are qualitatively different from the standard unit of value. They are the tangible or intangible manifestations of debts and claims, arising from indirect exchange and expressed in terms of the standard of value, or *money*.

The second misconception is that money is a commodity. Neither the means of payment nor the standard of value could be regarded as a commodity. The

²⁷ E.g., Kemmerer, E. W., Money, 1937, pp. 5-6.

29 Cf. Burns, A. R., Money and Monetary Policy in Early Times, 1927, pp. 6, ff.

²⁸ There are, however, many indications that cattle and other domesticated animals were frequently used to make *payments in kind*, especially to the temples for sacrificial purposes, fines, etc., and probably also sometimes for personal services.

standard of value is bound to be abstract. The means of payment may assume concrete form; they can be made of paper, nickel, silver, gold or some other commodity, but they can never be media of exchange by dint of this materialization.

A correct definition of money must not imply that there is any connection between the standard of value and a commodity, nor that the standard of value

and the medium of exchange are two aspects of the same thing.

22) The importance of a correct definition of money becomes apparent when applied to the central problem of monetary theory—the value of money. The traditional view of money as a commodity serving as the medium of exchange and the standard of value inevitably had to lead up to the quantity theory of money. Changes in the value of money had to be explained in the same manner as changes in the value of wheat or apples, namely in terms of demand and supply. Just as a shortage of apples would force up the price of apples, so, it was thought, an inadequate supply of money would surely raise the value of money. Conversely, an expansion of the money supply would inevitably result in a lower value of money, or a higher price level. No matter how modified and qualified, all versions of the quantity theory must necessarily be rooted in this fundamental proposition. In fact, monetary theory as a separate branch of economics could not exist save on the preconception that fluctuations of price levels (and, therefore, indirectly of output and employment) are due to special monetary causes not encompassed by the theory of (relative) value.

The error of such reasoning is at once revealed when the distinction between

standard of value and media of exchange is observed.

The "value of money" is clearly a phenomenon of the standard. No other meaning could be attached to the statement that the value of the dollar has decreased than that the magnitude of purchasing power expressed by one dollar is smaller than it was before. Now, the standard of value, being an abstract concept, could not possibly have a value per se in the same sense that apples or wheat have a value which is influenced by changes in supply. Nor could there be any such thing as a supply of the abstract concept of value which is the standard.

The "supply of money" or "quantity of money," on the other hand, obviously must be interpreted as a phenomenon of the medium of exchange. There can be more or less "money" in circulation, more or less deposits, notes and coins. But how could it be maintained that a change in the quantity of credit instruments (or a change in the volume of transactions giving rise to credit instruments, including currency) could *eo ipso* bring about a change in the value expressed by one dollar? A credit instrument of a face value of one dollar represents purchasing power to the extent of one dollar—whatever that may be. The "value" of the credit instrument is determined by the amount of purchasing power expressed by one dollar, not the other way around. To state the opposite would be like saying that the quart becomes a smaller measure of capacity if there are more quart bottles.

Changes in the "value of the dollar," i.e., in the magnitude of purchasing

power expressed by one dollar are, in fact, never determined by quantitative changes in the supply of media of exchange, but are the result of the continuous interplay of all the forces of supply and demand affecting each and every commodity. There are no separate "monetary" forces responsible for changes in price levels. Any attempt to seek the explanation for fluctuations in price levels, output and employment in changes of the quantity of exchange media is to pursue a mirage. Similarly, any attempt to control or prevent such fluctuations through quantitative control of the media of exchange is necessarily doomed to failure. They both grow out of a fundamental misunderstanding of the nature of money.

EFFECT OF FRANCHISE TAXES UPON CORPORATE LOCATION

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Much difference of opinion exists concerning the weight given the taxation factor by incorporators in choosing the state of incorporation for businesses. The issue is hotly debated at times and two contradictory theories are advanced.¹ According to the first of these, such factors as accessibility to raw materials, fuel and power, nearness to market, and an abundance of cheap labor and capital are no longer as important as they once were. Adherents of this view call attention to the fact that geographical wage differentials are fast being eliminated by labor union activity, while the benefits of a location close to raw materials or close to one's markets are being reduced by cheaper transportation. Geographical tax differentials are thus assuming increasing importance and soon will be the only remaining important location factor.

The other group maintain that a small gain in efficiency of operation due to a favorable location will more than offset any disadvantage of a location arising from unduly heavy taxation. The discussion which follows will treat this problem.

1

The taxes which corporations pay to states fall into four general classifications: property taxes, income taxes, organization taxes, and annual franchise taxes. The problem of property taxes is so complicated by varying methods of property valuation as to render a fair comparison of the rates of the different states impossible in a paper as a short as this.

Income taxes are not a burden to the corporation without an income and so never increase a loss of a business or change a net profit to a net loss. But because income taxes are given consideration in locating an enterprise the income tax rates of the various states are shown in parenthesis in each of the tables which follow later.

Organization taxes are paid but once. For this reason and also because it costs only \$1,000 more to incorporate a million dollar concern in the most expensive state than to incorporate it in the least expensive state, organization taxes are probably of little importance in determining location.

In the matter of franchise taxes states can be divided into five classifications. The first group, made up of the five states mentioned in Table I, do not charge any franchise tax. Six states charge a franchise tax of a flat amount which is so small as to be scarcely worth considering. The states comprising this group and the amounts they charge are shown in Table II. The 11 states included in the first two classifications might be said to operate on the theory that granting

¹ Such a debate is now in progress in North Carolina. The two theories sketched in this introduction represent the view-points advanced in the current controversy.

citizens free access to the benefits of incorporation is a regular duty of a state government, similar in some respects to its duty of providing police protection or good roads. To the extent that the policy encourages business it enhances the revenue of the state from other sources.

The remaining 37 states charge an annual franchise tax sufficiently high to suggest that the tax is intended partially at least as a source of revenue. These states can be divided into three groups on the basis of their method of computing the amount of the tax to be paid by the corporation. The first group charges a tax which varies in amount directly with the size of the corporation's capital or capital stock and surplus. The 15 states making up the group and the rates which they use are shown in Table III.

The annual franchise tax rates of 17 other states are so arranged as to decrease as the size of the corporation increases; that is to say, the rate is lower per dollar of capital on a large corporation than it is on a smaller one. The cost per dollar

TABLE I STATES WITHOUT A FRANCHISE TAX²

Iowa	(2% a)
Minnesota	(6% a)
S. Dakota	(1% to 8% a)
Wisconsin	(2% to 7% a)
Montana	(3% a)

TABLE II
STATES WITH A NOMINAL FRANCHISE TAX

Indiana (0%)	\$1 a year
N. Dakota (3% to 5% a)	\$2.50 a year
Nevada (0%)	\$5 a year
Mass. (21%)	
Arizona (1% to 5% a)	\$20 a year
California (4% a)	

of capital of four corporations of varying size in each of these 17 states is shown in Table IV.

Connecticut, Texas, Utah and Pennsylvania make up a group which does not fit into any of the above classifications. In Connecticut a corporation must pay a franchise tax equal to the larger of 2 per cent of its net income before interest or \$1 per thousand dollars of capital stock, surplus, and debt. In Texas the franchise tax is \$1 per thousand dollars of capital stock, surplus, and debt up to \$1,000,000 after which the rate drops to 30 cents. In Utah a corporation must pay 3 per cent of its net income or $\frac{1}{10}$ of 1 per cent of the value of property located within the state. In Pennsylvania a corporation must pay \$5 per \$1,000 of

² Income tax rates are shown in parentheses. Montana calls the income tax a "franchise" tax. The letter a indicates that the rate applies only to that portion of the income allocated to that state. Data contained in Tables I to V were obtained from the corporate codes of the various states.

TABLE III
ANNUAL FRANCHISE TAX PER \$1,000 CHARGED BY 15 STATES

STATE	AMOUNT	BASIS OF TAX
Colorado (4% a)	\$0.10°	Authorized Capital Stock
Rhode Island (0%)	.25b	Authorized Capital Stock
Illinois (0%)		Capital Stock and Surplus
Missouri (2% a)		Capital Stock and Surplus
Kentucky (4% a)	.70	Capital Stock and Surplus
Oklahoma (6% a)		Capital Stock
Ohie (0%)		Capital Stock and Surplus
New Yorkd		Market Value of Stock
New Mexico (2% a)		Capital Stock
Arkansas (2% a)		Capital Stock
Mississippi (3% to $6\frac{1}{2}\%$)		Capital Stock and Surplus
Louisiana (4%)		Capital Stock and Surpluse
North Carolina (6% a)		Capital Stock and Surplust
Michigan (0%)		Capital Stock and Surplus
South Carolina (41%)		Capital Stock

a Plus a flat fee of \$5.00.

b Plus \$2.00. Rhode Island has an excess tax also.

e Plus \$5.00.

^d If 6 per cent of 70 per cent of net income plus officers' salaries minus \$5,000 is greater than the market value of the stock, then this figure is used as base.

^e In Louisiana debts in excess of corporate capital must be added to the capital before computing the tax.

^t If investment in tangible property in state is greater or if the assessed value of property held in the state is greater, then this is used as base.

TABLE IV

Variations in Annual Franchise Tax per \$1,000 of Capital Stock for Four Sizes of

Corporations in 17 States

STATE	SIZE OF CORPORATE CAPITAL STOCK				BASIS OF TAX
	10,000	100,000	1,000,000	10,000,000	3.013 03 1.01
New Hampshire ^b (0%)	\$1.125	\$0.30	\$0.067	\$0.01	AC
Idaho (1½ to 8% a)	1.25	.375	.09	.015	AC
Oregon ^e (8% a)	1.50	.50	.125	.02	AC
Maine (0%)	.50	.10	.05	.025	AC
Delaware (0%)	.70	.12	.052	.0277	AC
Wyoming (0%)	.50	.10	.05	.05	CS
Maryland (1½% a)	1.50	.80	.15	.06	CS
Washington (0%)	1.50	.275	.2525	.08525	AC
Floridad (0%)	1.00	.75	.50	.10	CS
Vermont (2% a)	1.00	.15	.105	.1005	CS
Nebraska	. 50	.50	.40	.1075	AC
Virginia (3% a)	1.50	.55	.225	.1125	AC
West Virginia (0%)	4.00	1.10	.35	.17	AC
Georgia (5½% a)	1.00	1.00	. 50	.175	CS
Kansas (2% a)	1.00	1.00	.50	.25	CS
New Jersey (0%)	2.50	1.00	1.00	.405	CS
Tennessee (4% a)	2.00	1.70	1.65	1.51	AC
Alabama (3%)	3.00	2.80	2.10	2.01	CS

* Letters AC denote authorized capital; letters CS denote capital stock outstanding.

b Maximum \$105.

e Maximum \$200.

d Maximum \$1,000.

• Has option of paying .005 of gross receipts within state.

actual value of capital and surplus plus \$4 per \$1,000 of debt, plus a \$5 flat filing fee.

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If one were to divide the states into three classes on the basis of franchise taxes, the 11 states which charge no franchise tax or only a nominal one would warrant the adjective "generous." The first four states listed in Table III, the first 14 listed in Table IV, and the state of Utah, are probably entitled to the term "liberal." The remaining 18 states are definitely "expensive."

If businesses tended to incorporate in states where franchise taxes are low, then we should expect to find most corporations located in the generous states,

TABLE V
STATE OF INCORPORATION OF 1.928 BUSINESSES

Generous Group		
California	82	
Nevada	66 -	
Massachusetts	49	
8 others	80	277
Liberal Group		
Delaware	557	
Illinois	97	
Utah	80	
Maryland	54	
Missouri	41	
Maine	33	
13 others	81	943
Expensive Group		
New York	198	
Ohio	149	
New Jersey	115	
Michigan	108	
Pennsylvania	91	
13 others	47	708

particularly in Nevada or Indiana, where no state income taxes are levied. However, a study of the state of incorporation of 1,928 businesses does not bear out this expectation.³ These 1,929 corporations include some organized many years ago. The tendency in the last decade has been for approximately 50 per cent of new corporations to incorporate in Delaware, 25 per cent in Michigan and New York, and the balance to distribute themselves among the other states.⁴ Delaware, of course, is a member of the liberal group, but both Michigan and New York belong to the expensive group.

4 Ibid., Table 40.

³ Statistics of American Corporations, Part 1, Table 38, Securities and Exchange Commission, 1941.

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It is not difficult to find an explanation for the failure of corporations to flock to the generous states. Some corporations do business entirely within the boundaries of one state. Such businesses never find it to their advantage to incorporate in a state other than the one in which they are doing business because incorporation elsewhere makes them "foreign" corporations and requires that they pay an "entrance" tax before doing business in the state where they are actually located. These entrance taxes in most cases are so designed as to destroy any advantage of incorporation elsewhere.

Corporations doing a business national in scope are subject to an annual foreign corporation "entrance" fee in each state in which they operate, based in most instances on the portion of their total business originating in that state. They must also pay an annual franchise tax to the state in which they are incorporated. As a rule such corporations find it to their advantage to locate in Delaware.

This fact immediately raises the question why some high cost state, say North Carolina, should not increase its revenue by lowering its rates so as to obtain a share of the spoils which now seem to be flowing to Delaware. The answer is obvious. The income of North Carolina from corporate franchises is already almost as great as that of Delaware. Were North Carolina to lower its present rate of \$1.75 per \$1,000 to say 5¢ per \$1,000, the loss of its revenue from businesses already incorporated in North Carolina would far exceed anything it could hope to gain from attracting new incorporations. Furthermore, the difference between what Delaware charges and what Indiana charges (\$1) does not seem to be significant to corporations. Otherwise 50 per cent of new corporations would now be incorporating in Indiana rather than in Delaware.

Finally, the maximum state income that can be hoped for from liberal franchise taxes is significant only to states such as Delaware which have a low total budget.⁵

73

Annual taxes varying with the amount of capital stock, capital stock and surplus, or capital stock, surplus and debt are called "franchise" or "excise" taxes. As such, the implication is that they are levied for the privilege of doing business within the state.⁶ If this were true, then the amount of tax which a

⁵ Total tax collections for the state of Delaware in 1939 were \$11,954,734 of which income from corporate franchises constituted approximately 30 per cent. Total tax collections in North Carolina were 6.4 times as great. Franchise tax collections in North Carolina in this year were only \$1,290,000 less than they were in Delaware, yet they constituted only one thirty-eighth of the state's revenue. If all of the income which Delaware obtains from its corporate policy could be successfully diverted into the coffers of the state of North Carolina, income from corporate franchises would amount to one-sixteenth of the total. But if Delaware could attract to itself the income which North Carolina now gets, it could cut its other taxes in half. Apparently Delaware has more of an incentive for competing than does North Carolina.

⁶ One might well wonder why in a free world, such as ours, a citizen of any state should have to buy the privilege of entering into a productive venture which if it is successful should increase the wealth and prosperity of the citizens of that state. It is unfortunate

corporation should pay should be roughly proportional to the amount of business done. The amount of business done can be accurately measured by the amount of sales. However, only if the amount of assets required to obtain a dollar's worth of sales is constant for all industries would it be true that a tax levied on capital stock would be proportional to the amount of business done. That this is not true is clearly brought out by the figures shown in Table VI. Since assets are obtained through the issuance of capital stock or evidences of indebtedness, it follows that franchise taxes per dollar of business done fall heaviest on those industries having the lowest total asset turnover. As a corollary it follows that this burden is heaviest in states, like Pennsylvania, which tax capital stock, surplus and debt, next heaviest in states like North Carolina whose tax is computed at a constant rate of capital stock and surplus. States like Delaware, which charge a decreasing rate, offset the effect to some extent so that their tax comes closer to being a true tax on the privilege of doing business.

If the turnover of assets were the same for all businesses, then the method of computation used by Pennsylvania would come the closest to being a true privi-

TABLE VI
CAPITAL TURNOVER RATIO OF SELECTED INDUSTRIES

COMPANY	INVESTMENT IN ASSETS REQUIRED TO OBTAIN \$1 IN SALES IN 1938
Anaconda Copper	\$3.65
Texas Corporation	1.43
Curtiss Wright	1.12
R. H. Macy, Inc.	.65
Sears, Roebuck & Co	.53
Kroger	.21

lege tax. To illustrate, consider the hypothetical case of a \$1,000,000 corporation doing business in a state in which the franchise tax is \$1 per \$1,000 of authorized capital stock. If it were financed entirely by capital stock, it would pay a tax of \$1,000. If it were financed half by capital stock and half by past earnings, its tax would be \$500. If it were financed 25 per cent by stock, 25 per cent by past earnings and 50 per cent by borrowings, it would pay \$250. Thus, though in all three cases the same amount of business was done and the same amount of capital was employed, the tax differed according to how the capital was obtained. Where the base of the tax is capital stock, surplus and debts, this result will not be obtained.

It would seem, therefore, that franchise taxes as they are now levied are not excise taxes in the true economic sense since no attempt is made to vary their burden in accordance with the value of the corporate privilege to the user. Such taxes are merely a source of revenue to the state, levied without regard to how

that states have found it necessary to masquerade their attempts to obtain revenue behind a pretense of selling privileges. The practice implies that business is a "sin" for which one must first purchase an "indulgence."

the burden falls or what the economic consequences may be. One cannot escape the conclusion that the only consideration is the immediate effect of the tax on the amount of revenue obtained by the state.

V

Today, most companies that are free to incorporate anywhere choose the state of Delaware. Notwithstanding this fact, however, a lowering of the franchise tax rate in the more expensive states would neither increase their revenue nor attract additional industries to them. It would be out of the question for a state like North Carolina to lower its rates enough to compete with Delaware and even if it made the attempt, it is exceedingly doubtful if the move would prove effective since many states already have rates lower than those of Delaware.

High franchise tax rates do not ordinarily place a burden on domestic corporations that do business outside the state or give foreign corporations an advantage over domestic corporations in doing business within the state, if the state permits the tax to be allocated. Thus, where allocation is permitted, a domestic corporation pays a franchise tax only on that part of its capital stock and surplus represented by activities within the state. A company incorporated in that state but doing business outside of it would pay less franchise tax to the state in which it is incorporated than it would pay to Delaware if it were incorporated there, since the tax in Delaware is levied on the basis of the authorized capital stock and allocation is not permitted. On the other hand, a company incorporated in Delaware but doing business in a high-cost state would pay as much franchise tax to the high-cost state as it would if it were a domestic corporation.

In other words, if we assume that other location factors such as freight rates, access to raw materials, and nearness to markets are favorable to the high-tax state, franchise taxes neither encourage nor discourage incorporation in that state. If these other factors are unfavorable to location in the high-tax state, an absence of all franchise taxes would not be enough to attract industries there.

THE CURRENCY-BANKING CONTROVERSY: II

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In a preceding article an account was given of the opposing views of the Currency and Banking Schools against the background of events and ideas which gave rise to them. The analysis was carried up to the passage of Peel's Act of 1844. It is proposed in the present paper to conclude with a discussion of the working of the Act and the continued controversy regarding it. Particular attention is given to the first years of the Act's operation, 1845–1857, a period which included two major economic crises.

I

Peel's Bank Act came into operation on August 31, 1844. At that time the reserve position of the Bank was most favorable. During the years 1840 to 1844 there had occurred a large influx of gold which had carried the Bank reserves to fourteen million pounds in August, 1844—an unprecedentedly high level. This allowed for the Banking Department reserve a much larger amount (eight millions) than had generally been anticipated. It meant a reserve ratio of over 61 per cent (of notes to deposits) as against the 33\frac{1}{3} per cent imagined by Torrens. The total bullion reserve of the Bank increased still further in 1845 and 1846, finally reaching a level of sixteen millions.

In the two years following the passage of the Act, with the first major railway boom in progress, business was prosperous, and the Government congratulated itself on the successful working of the Act. In 1847, however, the process of industrial expansion was checked by a serious commercial crisis. During the first three months of 1847 the Bank's metallic reserves declined from fifteen to ten millions, nearly the whole burden falling on the reserve of the Banking Depart-The latter fell from eight to three millions. The Bank was greatly blamed for its tardiness in raising its discount rate during this drain. It was not until April, when the Bank rate was raised to 5 per cent, that it reached the market rate, and by this time Banking reserve had already fallen to three mil-After recovering somewhat, the reserve began to decline again later in the The Bank rate was then raised to 5½ per cent. The reserves continued to fall, however, at an increasing rate, the Banking reserve declining from four millions to one million during October. This second drain appears to have been mainly caused by an internal demand for gold. The question therefore arose as to whether it would not be better for the Bank to make liberal advances rather than to restrict loans. A liberal policy had worked in the crisis of 1825. The Bank, however, continued its restrictive policy, no doubt out of fear that to lend freely would have resulted in a complete disappearance of the already very much reduced reserve in the Banking Department.1

¹ For this fear there was some justification. In the crisis of 1857 when the Act of 1844 was suspended the increased issuance of notes to the public was larger than the amount of

It was under these circumstances and in the light of the fact that the Issue Department had a reserve of seven millions, that the Government at last yielded to pressure and issued the famous Treasury Letter suspending the Act of 1844. The Letter apparently produced immediate relief to such an extent that there was no call for an expansion of notes by the Bank, and hence there was no infringement of the Act.

This period of economic expansion was interrupted in 1854 by the outbreak of the Crimean War which necessitated a large outflow of funds to support armies abroad. In the fall of 1856 the Bank rate rose as high as 7 per cent. This pressure passed without complications and the Bank apparently felt well pleased with its policy. In the latter part of 1857, however, the railway boom which had been in progress in the United States came to an abrupt conclusion. All the banks of the larger centres in that country suspended payments. Many English and Scottish banks which were closely connected with the American trade failed, and the repercussions soon became widespread. London bankers called their loans to discount houses, and the bill brokers thereupon had recourse to the Bank of England. The Bank had already had its reserve reduced by war expenditures and now, although the foreign drain had ceased, an increasingly serious internal drain arose. The Bank found itself in much the same position as in 1847, that is of feeling the necessity of adopting a liberal policy but of fearing to exhaust the reserves of the Banking Department. By successive steps the discount rate was raised until on November 9, 1857, it reached 10 per cent. On November 12, when the Banking reserve had fallen to half a million pounds, a Government Letter authorizing the suspension of the Act was issued. This time the demand for credits was not sufficiently allayed by the Government Letter to prevent an infringement of the Act. The Bank as a whole issued close to one million pounds in notes beyond what was legal under the Act.2

H

These events gave rise to much discussion. Most notable were the investigations of three Parliamentary Committees³ and the evidence given by Currency and Banking School writers before these Committees.

The Committee of the House of Lords of 1847–1848 argued in its Report that the main defect of the Act of 1844 was that under its provisions internal drains had to be treated in the same way as foreign drains. According to the Report,

notes in the Banking Department reserve just before the suspension of the Act. In 1825, also, although a liberal policy had saved the Bank's *gold* it had not prevented an extraordinary issuance of *notes*.

² On the events of the crisis related here see Great Britain, House of Commons Report on the Bank Acts, Parl. Papers, Vol. X (1857), pp. viii-xii.

³ Great Britain, House of Commons, First and Second Reports on Commercial Distress, Parl. Papers, Vol. VIII (1847-1848), Parts I and II; House of Lords, Report from the Secret Committee . . . Appointed to Enquire into the Causes of the Distress . . , Parl. Papers, Vol. VIII (1847-1848), Part III; House of Commons, Report on the Bank Acts, Parl. Papers, Vol. X (1857, 2d Session). Parts I and II; and Vol. V (1857-1858).

a liberal, not a restrictive, policy ought to be followed by the Bank of England during crises as long as the foreign exchanges were favorable, as in the second drain of 1847 when the exchanges had been favorable, and the drain of gold had been mainly due to internal demand. Too little attention, it was said, was paid to the velocity of circulation as a factor influencing prices. It was pointed out that a domestic demand for gold, or for accommodation in any form, occurring at the height of a crisis clearly arose out of a desire to hold cash rather than to increase the active circulation. There was no danger therefore that it would lead to a rise of prices and further drain on the Bank. The cause of the drain was mainly loss of confidence, and the appropriate corrective measure was one which would restore confidence. The Report concluded by recommending that the Bank Act should be amended to provide for a discretionary relaxing power to be exercised only if the foreign exchanges were favorable.

The Currency School and important directors of the Bank vigorously opposed the proposal to include a relaxing clause in the Act of 1844.⁵ They objected, first, that a foreign drain would not be checked if relaxation of restrictive measures were anticipated by the public; second, that a relaxing clause would reintroduce into the management of the currency the factor of discretionary action which had proved so dangerous before 1844; and, third, that a departure from the principles of a purely metallic currency would be involved. To support the position of the Lords' Committee there was a long history of authoritative opinion and of actual events. The question had been debated as early as the crisis of 1793 when an internal drain on the Bank had been relieved by an emergency expansion of Government credit. Commenting on these events, the Bullion Report had contained a decided statement⁶ in favor of the stand now taken by the Lords' Committee. The problem had arisen in subsequent crises, but it had never become an established policy with the Bank to meet a panic demand for accommodation with liberal credits. In each case the Bank had only taken such action as a desperate last resort.

The main defense of the Act advanced by the Currency School was that it had

6 The Bullion Report, 1810, p. 40.

⁴ The views expressed in the *Lords' Report*, including particularly the recommendation for a relaxing clause, were widely supported. Among those holding such views were: Lord Ashburton (Francis Baring), *The Financial and Commercial Crisis Considered*, 3rd. ed.; London, 1847, pp. 11-17; two Liverpool business men, Hodgson and Turner, see their evidence given before the *Commons Committee of 1847-48*, qs. 389-405, 370-372, 672-675; John Inchbald in *The Price of Money*, London, 1862, pp. 17-21; and R. H. Mills, *The Principles of Currency and Banking*, 2d ed.; London, 1857, p. 80. See also a "Petition to Parliament of the Merchants, Bankers and Traders of London," reprinted in Overstone's *Tracts*.

⁵ Cf. Overstone's evidence before the Commons Committee of 1847-48, qs. 1440, 1456-1461, 1514, 1551; the evidence of Morris, the Governor, Prescott, Deputy-Governor, and J. W. Norman, director of the Bank of England, before the Commons Committee of 1847-48, qs. 2718 ff. and qs. 2798-2803. Other important authorities whose views helped to prevent the adoption of a relaxing clause when the Bank Charter came up for renewal in 1858 were Sir Robert Peel and Neave, the governor of the Bank in that year. For Peel's views see Tooke and Newmarch, op. cit., V, 499, and for Neave's, Committee of 1857-58, qs. 394-395.

provided satisfactory safeguards for the convertibility of the currency. Furthermore, it was declared, these safeguards were sound in principle, inasmuch as they represented an application of the principles of a purely metallic currency. All objections to the Act on the grounds that it was too restrictive, encouraged speculation, failed to prevent booms, or caused too frequent and violent changes in the rate of interest, were in this manner easily disposed of by the Currency School. They pointed out that any phenomena which occurred under the Act of 1844 would also occur with a metallic system and that the Act was not intended to do more than to cause the currency to operate as a metallic one would have done.

The Currency School contended that the Act had secured convertibility by forcing the Bank to keep a larger stock of bullion on the average. They emphasized the argument that by this means not only was the danger of actual exhaustion of the reserves averted, but also any apprehension that the Bank was likely to lose all its gold. Referring to the events of 1847 Overstone declared that had it not been for the Act, serious alarm with regard to the safety of the monetary system would probably have intensified the crisis as, in his view, had happened on occasions before 1844.8

There is reason for accepting the Currency School view that the Act had protected the reserves of the Bank. Overstone was able to point out in 1848 that the gold in the Bank had not fallen below six million pounds in 1847, as compared with the almost complete exhaustion of the years 1825 and 1839, and furthermore that under the Act the Bank was obliged to take steps for protecting its reserves earlier than it had done before the Act. It had to restrict its advances and raise the discount rate as soon as the comparatively small reserve applicable to the deposits was threatened; and this happened before the bullion in the Issue Department had been much reduced, since nearly all the notes returned to the Issue Department meant an abstraction of so many notes from the Banking reserve.

Although much disappointment was evidently felt with the results of the Act of 1844, there still remained a large body of opinion which was in favor of its continuance. To begin with, the leading members of the Currency School continued to be influential and active on behalf of the Act for the first twenty years of its life. Norman was still a Bank director; Torrens wrote a large volume defending the Act; on and Overstone, whose prestige was tremendous,

⁷ On what follows cf. Overstone, Commons Committee of 1847-48, qs. 5117, 5142; Morris and Prescott, ibid., q. 2717; Cotton (a Bank director), ibid., q. 3934; David Salomons, Committee of 1857, q. 1196; Thomas Weguelin (Governor of the Bank from 1853-1857) ibid., q. 287; John Inchald, op. cit., pp. 15-16; Charles Neate, Two Lectures on Currency . . . Oxford, 1859, p. 39; George Combe, The Currency Question . . . 6th ed., London, 1856, p. 38 ff; R. H. Mills, op. cit., pp. 109 ff.

⁸ Report from the Secret (Commons) Committee on Commercial Distress (1847-1848), q. 5117.

⁹ Ibid., q. 5142.

¹⁰ The Principles and Practical Operation of Sir Robert Peel's Act of 1844, 3d ed.; London, 1858.

appeared before all the Committees. The leading Bank directors had adopted the Currency School position, and there were many new names to add to the list of Currency School writers—notably John Inchbald, Charles Neate, George Combe, A. H. Mills, Neate was a professor at Cambridge and Mills at an Irish University. Their writings consisted of published lectures in which, it is interesting to observe, Currency School theory was outlined as the approved doctrine of the day. George Combe championed the cause of the Currency School in a pamphlet which was received with great acclaim by the Times, and which quickly ran through six editions within a year. The three Parliamentary Committees were in favor of the continuance of the Act, though one, the Lords' Committee, wanted some modification of it as indicated above. Even Wilson, as a member of the 1857–1858 Committee, cast his vote with the majority in approving the Report which, on the whole, spoke favorably of the Act.

Against this weight of favorable and semi-favorable opinion may be set the adverse judgment of only a few important figures of the time, namely, Tooke, ¹⁶ Newmarch who collaborated with Tooke on the later volumes of the *History of Prices*, ¹⁷ John Stuart Mill, ¹⁸ and Cairnes. ¹⁹ It is not surprising therefore that no changes were made in the Act of 1844 at this time.

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The purpose of this section is to attempt an evaluation of the theories and actual proposals of the two schools.

The Banking School did not succeed in overturning the doctrines of their opponents as regards the relation between money and prices. In the first place, too much attention was given by the Banking School to refuting the theory, allegedly the essential part of the Currency School doctrine, that banks could directly regulate the volume of notes in actual circulation and could thus regulate prices. Too little space was given to appraising the view that prices could be influenced through the regulation of the total supply of money of which notes were only a part. That part of Banking School theory which did apply to this question contained some elements of significant criticism but also some definite fallacies. The latter is true, for instance, of Fullarton's doctrine of loan and reflux, and of the distinction made between the effects of an influx of gold from the mines (which it was contended would raise prices) and the effects of an influx

¹¹ The Price of Money, 1862.

¹² Two Lectures on the Currency, 1859.

¹³ The Currency Question Considered, 1856.

¹⁴ The Principles of Currency and Banking, 2d ed., 1857.

¹⁶ Op. cit.

¹⁶ In his History of Prices, Vols. IV and V and his evidence before the Secret (Commons) Committee on Commercial Distress (1847-1848).

¹⁷ Vols. V and VI (1857).

¹⁸ In his Principles and his evidence before the Commons Committee of 1857 on Bank Acts.

¹⁹ In An Examination into the Principles of Currency Involved in the Bank Charter Act of 1844 (1854).

of gold which was part of the previously existing supply (which it was said could not have a causal effect on prices).²⁰

Furthermore, the theories of the Banking School suffered from being very obscure at crucial points. A study of the literature leads to the conclusion that whereas it is easy to describe the Currency theory because it formed an intelligibly connected set of ideas, the Banking School views were far from constituting a coherent or unified theory. It is, in fact, easier to say what they were not (that is, to point out the erroneousness of certain interpretations which might suggest themselves at a first reading of the literature and have sometimes been advanced), than to characterize them definitely. For example, the literature seems to contain little to support a characterization of Banking School views as a theory that if loans were made only on short-term securities representing real transactions, the increase of money in circulation would never outrun the increase in production. The Banking School did think that the increase in money could outrun production; it could and should do so at times when prices were tending to rise in sympathy with a business revival or for other reasons. Neither can it be said that the Banking School rejected the concept of a general price level as unreal and would discuss only the causes of changes in the prices of particular commodities. They had a great many ideas on the causes of changes in the price level. Finally, they did not, at any rate consistently, indicate that in their view the demand for loans was inelastic in relation to the rate of interest.

It appears also that almost any explanation of Banking School views which is appropriate at one point will turn out to be inapplicable at another, and a search for some implicit idea which would form a key to their whole position is not likely to be successful. Perhaps the most consistently underlying idea was that "capital" and "credit" and not the actual means of payment formed the limits of immediately available purchasing power. These writers failed to see that at any given time the extent of purchasing power which could be used was to be measured by the volume of what was customarily accepted as money in the community.

A second, very important, source of disagreement between the two Schools over the quantity theory in its application to short-run, cyclical fluctuations of prices, seems to have been the Banking School view that the extent to which purchasing power would be used depended mainly upon business men's profit anticipations.²¹ It seems to have been recognized, however, that decisions with regard to business ventures were shaped to some degree by the conditions of supply of capital and credit. Hence, as noted above, it would not be true to say that they believed the demand for loan funds to be completely inelastic.

²⁰ Fullarton, op. cit., pp. 62-64, 81, 126-28.

²¹ The Currency School, it must be noted, gave a place to "anticipations," but they were mainly concerned with the role of the latter in inducing bankers to participate in general business optimism by expanding their note issues. They underestimated the difficulty of currency expansion or contraction at times when business psychology was running in an opposite direction.

The views of the Banking School on "anticipations" might have been incorporated into the theories of the Currency School to great advantage. The emphatic claims of the Banking school that capital and credit ought to be carefully distinguished from currency appear, however, to have formed no contribution to monetary theory. These writers seem to have failed to recognize fully an important connection which exists between capital and currency. They glossed over the point that banks were simultaneously suppliers of capital and creators of money and could alter the supply of the former by altering the supply of the latter. This was an idea which was involved in the Currency theory but was not clearly developed, so that an important source of disagreement in this controversy never came to the surface.

While much of the Banking School reasoning as regards the relation between money and prices was fallacious, their criticism that the Currency School made the mistake of overemphasizing the role played by bank notes in the monetary system was correct. There can be no doubt that in this respect the Currency School led many of their contemporaries to expect more from the Act of 1844 than was actually achieved. The Currency School aim of reducing business fluctuations could not be realized by their simple rule providing for the regulation of bank notes alone, even if internal stability and international equilibrium had been harmonious objectives. The fact that Bank of England notes were an important element of other banks' reserves did not, for several reasons, afford the Bank adequate powers to regulate deposits. In the first place, since the reserves of satellite banks consisted of deposits at the Bank as well as of notes and coin, it was possible for the reserves of the former to remain the same while their holdings of Bank of England notes varied; and, of course, the opposite might occur. Hence the total liabilities of satellite banks might vary independently of the Bank's note issues. A second, most important factor introducing elasticity, was that the Banking Department of the Bank might allow its reserve ratio (notes to total liabilities) to vary. As already indicated, the Banking Department made little attempt to keep a constant reserve ratio in the period after the passage of the Act discussed above. Thirdly, changes in the opinions of bankers as to what was a safe reserve ratio for their banks might act to frustrate attempts to control the volume of money through the note issues. Finally, the public might elect to change the proportion of notes in circulation to bank deposits. Changes of this kind would assume particular importance for the Currency School if it were found that they corresponded with fluctuations of business activity. When there is added to all these sources of divergence between notes and deposits the possibility that variations in the velocity of turnover of money might offset changes in its volume, it is clear that regulation of Bank of England note issues was a far cry from regulation of the value of money.

We have seen that most members of the Currency School accepted the idea that deposits were means of payment. It was not because of failure to recognize this fact that they did not want to have deposits regulated. They defended their proposal for the regulation of notes alone with two main arguments. First,

they said that as far as legislative reform was concerned they wished only to make the mixed currency operate as a metallic system would have done. (By a metallic system they meant one in which coin was used instead of notes but which in other respects was like the currency of their day.) In the second place, the Currency School contended that it would be extremely difficult to regulate deposits, and they did not favor extensive interference with free banking. In other words, the regulation of notes was an improvement over no regulation at all.

As regards the actual working of the Act during the two major crises of 1847 and 1857, it seems fair to conclude that the main objective of the Currency School, that of securing the convertibility of the note, was substantially realized. Under the terms of the Act the Bank of England was obliged to restrict credit and raise the discount rate at an earlier stage of a gold drain than would have been the case without the Act. The assertions of the Currency School on this

point were supported by the complaints of their opponents.

This earlier action had not, however, carried with it the advantage expected of it by the Currency School. It had not made for more gradual action. It was still, as contemporaries pointed out, entirely at the discretion of the Bank directors whether or not they acted at the beginning of a drain or waited until the reserve situation in the Banking Department necessitated the application of severely restrictive measures. Had the directors acted up to the fullest expectation of the Currency School and raised the discount rate at the very beginning of a drain on their reserves, more gradual deflation might have been possible. Even so the rate at which the drain proceeded on some occasions was such that with the division of the Bank into two departments and the small amount of gold thus left as the operating reserve for the Banking Department, the measures required must necessarily have been drastic. For example, during the financial strain of 1847 the Banking Department lost more than two-thirds of its reserve within three months. Later in the same year, after a brief recovery, the reserve fell from four million pounds to one million in the space of one month.

The violence of these percentages of variation are not surprising when we remember how small were the absolute amounts of the reserves, even at their The Banking School were right in their contention that the reserves of the Bank of England were inadequate and that their inadequacy was intensified by the division of the Bank into two departments. As just noted, larger reserves would have made possible a more gradual restriction of credit during gold drains and would have prevented those disruptions of confidence which arose out of fears that the Bank's capacity to lend would be exhausted. Larger reserves would also have given the Bank greater powers to use discretion in its treatment of gold drains.

The Currency School response to complaints that the Act deprived the Bank of the power to differentiate between different types of drains was that the Government could in an extreme emergency authorize the suspension of the Act. This did not fully meet the difficulty, however, for the principle was at the same time established that the lifting of the fiduciary limit should only be permitted with the greatest reluctance and after a crisis had arrived rather than in order to prevent the occurrence of one. Hence it is clear that the policy of granting liberal advances to support confidence could not be used to its fullest advantage.

IV

Enlargement of the Bank's reserves continued to be urged by many in the long period, 1844 to 1914, during which the Act of 1844 remained unchanged.²² Throughout most of this period the basic ideas of the Currency School held sway, for the narrowness of the reserves enforced close attention to gold drains on the part of the Bank of England.

From the experiences of 1847 and 1857 emerged the definite realization that the Bank of England was not relieved by the Bank Charter Act from the responsibilities of monetary control.²³ In 1866 it was necessary again to suspend the Act, but thereafter commercial crises became less severe and panics were avoided. The Bank gradually learned how to operate under the Act, in other words, how to protect its reserves by systematic regulation of its discount rate and the use of other devices, particularly open market operations. In the first part of the period after 1844 the problem of protecting the reserves was made easier by large importations of gold resulting from the Californian and Australian discoveries. After 1870, however, the smallness of the reserves was again a conspicuous factor in the situation, and for most of the period 1870 to 1904 the Bank of England relied heavily upon discount and related policies to control gold flows. The increasing sensitiveness of the international money market to Bank of England policy made control easier, but the Bank's discount rate continued to show marked variations.

The unsteadiness of the Bank rate appeared to many critics to represent an unnecessary sacrifice of internal stability for the sake of maintaining international equilibrium. These critics followed the ideas of the Banking School in emphasizing the importance of stable credit conditions and urging the enlargement of the Bank's reserves or the use of other means for cushioning the impact of gold drains. Since 1914 such views have gained ascendancy and have been reflected in legislation and in reports of Parliamentary Committees.

²² On the operation of the Bank Act during the years 1857 to 1914 see particularly, R. G. Hawtrey, A Century of Bank Rate, 1938, chaps. ii, iii; W. Edwards Beach, British International Gold Movements and Banking Policy, 1881-1913, 1935, particularly pp. 38-39, 154, 168-169; T. E. Gregory, Select Statutes, Documents and Reports Relating to British Banking, 1832-1928, Introduction, pp. xxxix-xl.

²³ Or perhaps it would be better to say money market control. There seems to be considerable evidence that after 1844 opinion shifted rather generally to the belief that the Bank's responsibilities derived from the fact that its capital resources were so large. The monetary aspects of control were rather neglected. This is one of the main conclusions of Elmer Wood's English Theories of Central Banking Control, 1819–1858, Cambridge, Mass., 1939; see particularly pp. 122–24, 178. The Banking School and others had always seen Bank policy from a capital rather than currency angle. The Currency School after 1844 were more ready to accept this view because they held that the Act of 1844 had substantially established automatic control of the currency.

In the opinion of the Macmillan Committee of 1930-1931, however, the Act of 1928 had not gone far enough. In their Report a further step was taken as a result of which their views appear to resemble very closely the position held by Tooke and others of the Banking School. The Report stated that circumstances might well arise that were far from emergency conditions, in which it was desirable to let gold flow freely from the country.27 It was pointed out that under the fixed fiduciary issue and separation of departments the reserve of notes in the Banking Department was in effect the measure of the maximum amount of gold which the Bank could lose without a change in the volume of notes in circulation.28 The gold in the Issue Department was immobilized and could not be used for export. The Report concluded that "the task of reconciling international exchange stability with domestic credit stability will be made easier, if the Central Bank is free on occasion to allow wider fluctuations in the proportion of its total assets which is made up of gold and comparable items."29 The Committee therefore recommended that the fixed fiduciary issue and the separation of the Bank into two departments should be discontinued.30

v

Certain more general thoughts arise from a consideration of the issues involved in the Currency-Banking controversy and of subsequent developments in monetary doctrine. It has already been suggested above that the Banking School showed better judgment than the Currency School in some of their practical recommendations regarding central banking policy, particularly their plea for larger metallic reserves. It may be worth while also to offer the conclusion that the Banking School position in the history of monetary theory is not adequately appraised if these writers are thought of only as the forerunners of the more modern "elastic-currency-short-term-commercial-credit" school, with which one associates the names of Laughlin, Willis and Beckhart as important exponents.

²⁴ Great Britain, House of Commons, Report of the Committee on Finance and Industry, Parliamentary Papers, Vol. XIII (1930-1931), p. 27.

²⁵ Ibid., p. 28.

²⁶ Ibid., p. 139.

²⁷ Ibid., p. 140.

²⁸ Ibid., p. 30.

²⁹ Ibid., p. 141.

³⁰ Ibid., pp. 142-47.

There are other quite different and important modern developments which the Banking School may easily be thought of as foreshadowing. One such connection has already received considerable attention in recent writings, that is the relation of Tooke's income theory of prices to the income approach in later Swedish and English monetary theory. It is to be noted also that the general tenor of Banking School thinking, with its emphasis on entrepreneurial and consumer effective demand rather than on the quantity of money, and on entrepreneurial anticipations rather than on the rate of interest, seems to have anticipated in a broad way many of the most significant features of the Swedish and Keynesian break with the MV = PT type of analysis.

It is necessary, of course, to guard against overrating the Banking School in this connection, and the student of their writings may feel that he should discount many apparent anticipations of modern theories on the grounds that these anticipations appeared among a mass of obscure, disorderly, and often fallacious ideas—the generally unfavorable impression being heightened by the juxtaposition of Banking School writings with the clearcut presentations of the Currency School. But it is also to be remembered that while the Currency School were offering a point of view which had a long history of systematic development behind it and was already mature, the Banking School were working in hard and relatively unfruitful fields where new lines of thought were only just beginning to germinate.

THE CRITICAL ISSUE OF DEPRECIATION IN PUBLIC UTILITY VALUATION

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The problem of reconciling depreciation as an operating expense with the depreciation to be deducted in valuation constitutes one of the most important problems of public utility regulation under normal circumstances. Depreciation expense, on the average, takes up approximately ten per cent of the operating revenues of gas and electric utilities and a somewhat larger percentage of the revenues of telephone utilities. Assuming straight line depreciation accounting,1 the depreciation reserves of stable, mature utilities should theoretically approximate fifty per cent of the value of the depreciable property. Under existing conditions in a young and dynamic industry where much of the property is comparatively new it would not be unreasonable to expect reserves of thirty per cent, assuming that the depreciation allowances made in rate cases were actually credited to the reserve account. The reserves would represent the normal excess accumulation of these credits over property retirements during the past life of the utility property.2 The funds represented by the credit balance of the reserve have almost always been invested in property extensions. To the extent that such excess accumulations have been made, the ratepayers have contributed to the capital of the utility. This is the equitable basis of deducting the reserve in determining the rate base.

By virtue of the prevailing judicial doctrines and other circumstances, however, the complete amounts of such reserves are seldom if ever deducted in determining the rate base. Actual deductions are usually but a fraction of the reserves. If, for example, the plant and property is financed to the extent of 30 per cent by reserve accumulations, a deduction of only 10 per cent results in a rate base inflated by 28.6 per cent over the investment made by the utility itself. $\left(\frac{30-10}{100-30}\times 100=28.6\%\right)$ Such cases are typical. Their significance is apparent. The situation, while not unrecognized, has gone unemphasized by academic writers on the subject and for certain reasons is even ignored by

¹ Straight line depreciation accounting is assumed in this article except where otherwise noted.

² Actual reserves carried on the books are much lower for reasons mentioned later in this article. A total of 188 gas and electric utilities registered with the Securities and Exchange Commission had reserves aggregating 10.8 per cent of their property at the end of 1939. Financial Statistics for Electric and Gas Subsidiaries of Registered Public Utility Holding Companies, 1939, Securities and Exchange Commission, p. 3. In contrast the subsidiaries of the American Telephone and Telegraph Company have reserves of approximately 30 per cent or more of their property. These companies have followed straight line depreciation accounting since the uniform system of accounts was prescribed by the Interstate Commerce Commission in 1913.

regulatory commissions.³ Certain other important evils are related to it and will be taken up later in this article.

Basic to the writer's argument is the principle that the fair return should be based on the capital invested by the utility rather than on the value of the property. The latter theory is the Court's and was developed from the "present fair value" rule of Smyth v. Ames. All the mongrel theories of value, the uncertainties arising from fluctuations of the price level, the endless litigation, the exploitation of the ratepayers, the impairment of utility credit, and, extremely important, the tremendous administrative burdens which have almost emasculated commission regulation spring from this rule. The effects of the theory when applied to depreciation are equally obnoxious.

1

The judicial doctrines governing this phase of the depreciation problem stem directly from two decisions of the United States Supreme Court, namely, Board of Public Utility Commissioners v. New York Telephone Companys and McCardle v. Indianapolis Water Company. Both were opinions of Justice Butler.

The law as stated in the New York Telephone Company case is as follows:

"Customers pay for service, not for the property used to render it. Their payments are not contributions to depreciation or other operating expenses, or to the capital of the company... Property paid for out of moneys received for service belongs to the company, just as does that purchased out of proceeds of its bonds and stock. It is conceded that the exchange rates complained of are not sufficient to yield a just return after paying taxes and operating expenses, including a proper allowance for current depreciation. The property or money of the company represented by the credit balance in the reserve for depreciation cannot be used to make up the deficiency.

³ The problem is usually considered in connection with other problems of depreciation and valuation and for this reason has not received the recognition to which it is entitled. Cf. J. C. Bonbright, Valuation of Property, Volume II, p. 1136 and his article, "Depreciation and Valuation for Rate Control", Columbia Law Review, Volume 27, p. 113. Bauer and Gold take up the problem in their book, Public Utility Valuation. An outstanding discussion of some aspects of the problem in connection with other problems is that of Carl I. Wheat, "The Regulation of Interstate Telephone Rates" Harvard Law Review, Volume 51, p. 846. Other authoritative discussions include C. W. Thompson, "Depreciation Accounting Favored" Electrical World, Volume 104, p. 39, July 14, 1934; two reports of the Interstate Commerce Commission, Depreciation Charges of Telephone and Steam Railroad Companies, 118 I.C.C. 295 (1926) and 177 I.C.C. 351 (1931); the monograph Depreciation, a Review of Legal and Accounting Problems, by the staff of the Public Service Commission of Wisconsin (Madison, 1933); the Report of the Special Committee on Depreciation, Proceedings of the National Association of Railroad and Utilities Commissioners. 1938, pp. 438-518, 1939, pp. 338-408. The position of these authorities is substantially the same as that of the writer. For discussions of positions at variance with the one taken here cf. Nash, Economics of Public Utilities, 2d ed., Chapter 8; Riggs, Depreciation of Public Utility Property.

^{4 169} U.S. 466 (1898).

^{5 271} U.S. 23 (1926).

^{6 272} U.S. 400 (1926).

^{7 271} U.S. 23 at 32.

The Court thus denies the interest of the consumers in funds previously collected for depreciation and forbids the use of the reserve as a measure of depreciation. An alternative approach to the problem, that the utility having once insisted that certain amounts were necessary for depreciation might be estopped from later denying the validity of such amounts, was not considered. There is judicial authority for this approach. In Lousiana Railroad Commission v. Cumberland Telephone and Telegraph Company, a decision that has subsequently been almost completely ignored, the Court said:

"... It was obligatory upon the complainant (utility) to show that no part of the morey raised to pay for depreciation was added to capital, upon which a return was to be made to stockholders in the way of dividends for the future."

Thus disregarding this older case, the reserve balance was rejected as a measure of depreciation in valuation. A few months later in the McCardle case Justice Butler enunciated the Court's position on how such depreciation was to be determined.

"... The testimony of competent valuation engineers who have examined the property and made estimates in respect of its condition is to be preferred to mere calculations based on averages and assumed probabilities."

The effect of these two decisions is to establish a measure of depreciation in valuation that is almost always less than the contributions of the ratepayers.

Depreciation reserves are built up by charges to operating expenses which should, on the average and over the estimated life of the property, cover the loss in service life due to expected wear and tear, inadequacy, obsolescence, requirements of public authorities and fortuitous circumstances. Commissions, mindful of the uncertainties surrounding estimates for the future and desirous of maintaining the financial stability of the utilities, have erred in the past on the side of liberality in acceding to the demands of the utilities for depreciation allowances that cover these and all other conceivable causes of depreciation. Such allowances were based on calculations in which the service value of the property was spread over its service life in equal installments. The percentage relationship between the reserve and the total value of the property should then be a measure of the exhausted service life. Where utilities have actually set up such allowances they have accumulated large reserves which reflect the loss in service value due to all possible causes.

It would seem reasonable that a depresiation reserve which reflects the net total of such allowances should also reflect the accrued depreciation. The Court, however, in considering accrued depreciation rejected the reserve and "calculations based on averages and assumed probabilities" for the "testimony of competent valuation engineers who examined the property." It was immaterial that ratepayers were charged depreciation on the basis of such assumed probabilities and that the measure of one should consistently be the measure

^{8 212} U.S. 414, 424 (1909).

^{9 272} U.S. 400 at 416.

of the other. Nor does the Court seem cognizant of the fact that in practise the depreciation determined by an engineering inspection will almost always fail to reflect completely the net total of past depreciation allowances granted on the basis of estimated losses due to all of the above enumerated causes.

The reassuring sense of certainty in Justice Butler's phrase "the testimony of competent valuation engineers" is wholly illusionary. It is only the deterioration or depreciation arising from wear and tear that is normally determinable from an engineering inspection, and even here engineers differ widely in their conclusions. Depreciation arising from the other four causes is hardly within the field of competency of the engineers. As someone has pointed out, obsolescence does not accrue, it happens. The future results of the incalculable working of natural, political and economic forces are not to be divined by field inspection. Valuation engineers can probably rightly testify that they observed no obsolescence, no inadequacy, and no evidence of future acts of God or legislatures.

Generally speaking, wear and tear are of less importance in bringing about the eventual retirement of property in the dynamic utility industry than the other factors. In the period before the depression obsolescence and inadequacy were probably the greatest causes of the retirement of telephone property. The same is true to a lesser extent of electric utility property.

Even engineering inspections do not necessarily reveal the depreciation due to wear and tear. It is difficult at the best to determine the age and life expectancy of a vast mass of dissimilar property. "Calculations based on averages and assumed probabilities" are opprobrious to the Court. Faced with the difficulty of determining the remaining life expectancy of property units and the questionable admissibility of statistical evidence engineers easily fall into a practise consistent with their training and natural inclinations—that of identifying accrued depreciation with physical condition and operating efficiency. Time and again engineers on the witness stand will admit that accrued depreciation was measured by the estimated expense of putting the property in 100 per cent operating condition, and speak glibly of the capacity of the property to render service as compared with new property. It goes without saying that the "capacity to render service" is no measure of depreciation. 10 Depreciation then becomes nothing more than deferred maintenance. It is conceivable that if maintenance expenditures were large enough there would be, under this system, no accrued depreciation regardless of the amounts collected from the ratepayers for depreciation expense and regardless of the nearness of the time at which the equipment must inexcapably be scrapped. All too frequently commissions are met with the contention that since the property is rendering 100 per cent service there should be no deduction for depreciation. Such testimony may be advanced in face of the fact that the equipment in question has a reserve approximating its value behind it and may be ready for the scrap heap tomorrow.

¹⁰ The classic example is that of an electric light bulb which with almost all of its service life exhausted is still giving adequate service. The same is true to a lesser extent of all equipment.

The very persistence with which the argument is advanced is evidence of the considerable success that utilities counsels and engineers have had in gaining its acceptance. The arguments are even condoned by commission engineers.

It is also true that many commissions have been virtually forced to adopt engineering estimates of observed depreciation because of the lack of reliable accounting records. Records by which the ages of property units can be determined and remaining life estimated are almost always inadequate. The reserve balance seldom if ever reflects depreciation allowances made in past rate cases. Only in the case of the large telephone utilities whose accounting systems have been prescribed by the Interstate Commerce Commission since 1913 do the reserve balances approximately reflect past allowances. Most gas and electric utilities followed retirement accounting methods in the past in which only irregular credits were made to the reserve. These credits bore no necessary relation to the allowances made in rate cases. It is also true that in many cases the reserves have been written off to surplus and used to pay dividends or have disappeared in consolidations. In many cases the commissions themselves have been responsible for the inadequacy of the reserve accounts. The old practise of setting up a single rate of return to cover both the return on property and depreciation has contributed to the confusion and placed a premium on the loose accounting and financial practises too often indulged in by utilities. Whatever the causes, the result is that the book reserves of many utilities do not reflect the amounts paid by the ratepayers to cover depreciation expense, and must be used to a modified degree as an equitable measure of depreciation in valuation.

However, if the Court could be prevailed upon to modify its position such past accounting deficiencies should not be an insuperable barrier to the formulation of a consistent depreciation policy for the future. It is perhaps too much to hope that the Court would countenance the policy frequently adopted by the Wisconsin commission, as well as by a few other commissions in isolated cases, of reconstructing the reserve balance for valuation purposes. Under this procedure depreciation allowances granted in past rate cases but not set up to their full amount on the utility's books are utilized to reconstruct the reserve to be deducted in determining the fair value of the property. If such a procedure could be given a firm legal basis much of the present confusion and inequity would be removed. However, as the situation now stands, most commissions have been content to rely on engineering appraisals rather than on inadequate book records.

Hence the joint effect of the Court decisions and other considerations has been to set up a measure of depreciation in valuation based on engineering inspections which only partially reflect the extent to which the utility has been financed by the ratepayers. Once the funds have been collected from the consumers, utility engineers and counsel are virtually permitted to deny the validity of the claims upon which the collections were made. This in no way impugns the competence of these engineers to testify before the Courts. In fact the same engineers will testify both that the property is in near perfect operating

condition and hence subject to no depreciation for the purpose of valuation and also that the property has but a limited life expectancy and must therefore be rapidly depreciated by large allowances in operating expenses.¹¹ The result is that the consumer pays twice. After contributing to operating expenses to build up a depreciation reserve he thereafter pays a rate of return on the property financed from it.

п

Courts and commissions have not universally adhered to the doctrine of the Supreme Court. In minor cases or in cases where there was little likelihood of appeal commissions have utilized the reserve balance as a measure of accrued depreciation. Strong commissions and independent courts sometimes risk reversal in higher courts by ordering or permitting its deduction. In one of the most noteworthy recent cases the Minnesota Supreme Court stated that there must be some relation between the amount in the depreciation reserve and the amount of depreciation that has actually accrued and sustained a finding of accrued depreciation of 30 per cent as against testimony of company experts who inspected the property and found accrued depreciation of only 10 per cent. In one case the court thought that the commission had rightly accepted the testimony of its own engineers over that of the utility engineers since the accrued depreciation found by the latter differed so widely from the depreciation reserve. In

However, if the cases go to the United States Supreme Court the deduction will not be sustained.¹⁴ And it is likewise generally true that somewhere during the course of the case's progress through state and lower Federal courts, the reserve deduction will be rejected.¹⁵

One of the most significant cases in recent years was that involving the Public Service Commission of Wisconsin and the Wisconsin Telephone Company, which

¹¹ Only a few cases will be cited. In Carey v. Corporation Commission, 33 Pac. (2d) 788 (Oklahoma, 1934) the company engineer testified that the properties were in 92 percent of new condition and asked for an 8 percent annual depreciation allowance. In Re Southwestern Bell Telephone Company, 9 PUR (NS) 113, 125-130 (Oklahoma, 1935) the company claimed that it must earn 4.1 percent annually for depreciation and that the property had depreciated by 5.68 percent during an average life of seven years. In Los Angeles v Southern California Telephone Company, 14 PUR (NS) 252, 270-277 (California, 1936) the company had built up a reserve of nearly three times its estimate of existing depreciation and claimed that the present depreciation rate was inadequate. In State v. Lone Star Gas Company, 29 PUR (NS) 263, 294 (Texas Court of Civil Appeals, 1939) the company claimed a depreciation allowance of nearly 6 percent per annum, as compared with an engineering estimate that the property had depreciated but 5.74 percent during its entire life.

12 State v. Tri-State Telephone and Telegraph Co., 284 NW 294 (Minnesota, 1939).

¹³ Southern Bell Telephone & Telegraph Co. v. Louisiana Public Service Commission, 174 So. 180 (Louisiana, 1937). Other significant cases since 1926 in which the deduction of the reserve has been clearly sustained include New York Telephone Co. v. Prendergast, 36 Fed. (2d) 54 (1929) and Southwestern Bell Telephone Co. v. State, 71 Pac. (2d) 747 (Oklahoma, 1937....).

¹⁴ Specifically in West v. Chesapeake and Potomac Telephone Co., 295 U.S. 662 (1935).

¹⁵ Cf. Pacific Telephone and Telegraph Co. v. Whitcomb, 12 Fed (2d) 279 (1926); Michigan Bell Telephone Co. v. Odell, 45 Fed (2d) 180 (1930); Western Buse Telephone Co. v. Northwestern Bell Telephone Co., 248 NW 220 (Minnesota, 1933). went before the Wisconsin Supreme Court in 1939 and was unsuccessfully appealed to the United States Supreme Court. The investigation and proceedings incident to this case extended over a period of seven years and were the third most extensive in the history of public utility regulation. The Commission, giving considerable weight to the Company's depreciation reserve of more than 30 per cent of the cost of the property, deducted depreciation of 28.74 per cent. The Company claimed depreciation of only 9.79 per cent based on an engineering inspection and its position and theory was sustained by the Wisconsin court. It might be significant that the Court commented unfavorably upon the fact that the Commission had both reduced the depreciation allowance and deducted the reserve. There is thus this distinction between the case and the Lindheimer case, supra.

Too much cannot be expected from the Lindheimer case, ¹⁸ although it may indicate a trend towards the modification of the Court's position. The Company had a reserve of more than 24 per cent of the value of the property and presented evidence to show accrued depreciation amounting to only 8 per cent. The lower court found accrued depreciation to be 15 per cent. The Supreme Court held that "in face of the disparity between the actual extent of depreciation, as ascertained according to the comprehensive standards used by the Company's witnesses, and the amount of the depreciation reserve," the Company had not met the burden of proving that certain reductions in depreciation expense constituted confiscation. It would not seem that this case sustains the deduction of the reserve. It merely restates the law as set forth in the preceding Smith v. Illinois Bell Telephone Company case. ¹⁹ Here the Court recognized the utility's ownership of the property represented by the reserve but held that excessive charges for depreciation expense in the past need not be continued for the future.

Thus there is no complete adherence in the lower courts to the position of the Supreme Court. Where the New York Telephone Company and McCardle cases have been followed the rate base has been inflated. Where they have not been followed there is confusion and uncertainty. The former is the greater evil and to elaborate unduly on the many controversial points at issue would obscure the crucial problem.

The complete effect of the New York Telephone and McCardle cases, however, would not be apparent from a summary of court decisions. In practice public utility regulation is a process of bargaining and negotiation, the record of which never appears in the written orders or decisions. In these two decisions the

¹⁶ Wisconsin Telephone Company v. Public Service Commission of Wisconsin, 287 NW 122 (Wisconsin, 1939).

¹⁷ The importance of the depreciation issue is attested to by the fact that four federal agencies, the Bureau of Internal Revenue, the Federal Communications Commission, the Federal Power Commission and the Interstate Commerce Commission, joined in the appeal to the United States Supreme Court to take jurisdiction and in the appeal pointed out the urgent need of clarification.

¹⁸ Lindheimer v. Illinois Bell Telephone Co., 292 U.S. 151 (1934).

^{19 282} U.S. 133, 158 (1930).

utilities have bargaining weapons of tremendous power. Regulatory commissions, knowing the weakness of their position on the depreciation issue, are often content to obtain quietly what little they can from the utility. The discussion of the controversial issue is avoided, since a strong opinion might not stand judicial review and a weak one would incite unfavorable comment and establish an undesirable precedent. Even where a commission has succeeded in establishing a just and feasible depreciation policy it is entirely likely that it has been obtained only at the expense of other and unspecified concessions.

A further serious criticism of the Court's doctrine is that it subjects regulation to all the limitations of the valuation process. It is difficult to over emphasize the enormous significance of the time and money that must be expended in determining accrued depreciation by means of physical inspection. Effective regulation is prompt regulation, and delay becomes a potent bargaining weapon of utilities seeking to prevent rate reductions. The expense of making an adequate determination of physical depreciation is one that only a few of the better financed and staffed commissions can afford to assume.

Once the physical valuation has been made it is extremely unlikely that there will be anything approaching consistency in the findings of the utility and city or commission engineers. The greatest sources of disparity are the findings of accrued depreciation. Utility engineers will submit estimates that recognize little more than deferred maintenance. Engineers for the city or commission will find considerably more depreciation. The Court or Commission is then placed in the impossible position of determining which of two widely diverging estimates made by equally competent groups of engineers most nearly represents the physical depreciation of the property.²⁰ In desperation an average of the several findings may be accepted. In view of the realities of the situation the Supreme Court's abhorence of averages is slightly ludicrous and the implied precision in the testimony of competent engineers evaporates in thin air. The result is that at the best prompt and effective regulation is impossible. At the worst the Commission, lacking funds and an adequate staff and wishing to avoid intolerable delays, will compromise at a figure that gives more than proportionate weight to the minimum estimates of depreciation submitted by the utility engineers.

It is possibly true that some other method than straight line depreciation accounting might be utilized to avoid the evils incident to the present situation. Under the sinking fund method the utility is charged interest on the reserve balance, the interest charge acting to reduce the utility's income. If the rate of interest on the reserve were as high as the rate of return allowed on the property represented by it it would be inequitable to deduct any depreciation in determining the rate base. However, this is seldom true and the divergence of the interest rate charged on the reserve balance from the rate of return and

²⁰ To cite only a few instances, in Carey v. Corporation Commission, supra, the Commission engineers found the Company's property in 80.56 per cent condition, the Company engineers found it in 92.04 per cent condition. In City of Wheeling v. Natural Gas Company, 175 SE 339 (West Virginia, 1934) Company engineers claimed the property to be in 82.6 per cent condition, city engineers claimed it was in 65.3 per cent condition.

from the market rate of interest is a source of serious inequity. Moreover, the sinking fund method is complex and difficult to apply and violates the Court's dicta that depreciation must be deducted.²¹

Retirement accounting generally used by gas and electric utilities in the past seems to be wholly undesirable. It lends itself too easily to the manipulation of accounts and to the over- or understatement of income. The accumulated reserves are likely to be deficient with the consequent impairment of capital.²² Most seriously of all, there is no correlation under this method between the allowance made in rate cases, the amounts set up on the books and the deductions to be made in valuation. This evil lies at the heart of the problem.

Of the several methods of handling depreciation, the straight line method with the deduction of the reserve is the simplest and lends itself with the greatest justice to the interests of both utilities and ratepayers. Its adoption has been urged in considered reports by two of the leading regulatory commissions, the Interstate Commerce Commission and the Public Service Commission of Wisconsin, and has been recommended by the National Association of Railroad and Utilities Commissioners.²³ From an administrative point of view it is the most acceptable method to regulatory commissions because of its simplicity. Regulation can be based on book figures and resort to physical valuation is unnecessary. It minimizes the evils arising out of the fundamental impossibility of predicting the future. If depreciation allowances are larger than subsequent experience proves necessary, the rate base is reduced by a larger deduction for depreciation and the consumers are not unduly penalized. If on the other hand such allowances are deficient the rate base is correspondingly enhanced because of the smaller reserve deduction.

It is unfortunately true that under existing judicial doctrines the straight line method without the deduction of the reserve allows utilities to inflate their profits to the greatest degree. For it is under this method that the reserve and the charge to operating expenses is the largest and the discrepancy between the reserve and the observed depreciation is the greatest. From a broad social point of view some question might also be raised as to the wisdom of piling up such tremendous reserves.

In spite of its advantages and the weight of authority in favor of it the writer does not propose to carry his argument to the point of recommending the straight line-reserve balance deduction method or of denying the validity of certain

²¹ As stated in Knoxville v. Knoxville Water Company, 212 U.S. 1 (1909).

²² Strangely enough Justice Butler in concurring in the *Lindheimer* decision questioned depreciation accounting and apparently advocated retirement accounting with the consequent reduction in the size of the reserve and depreciation allowance. He was not concerned with any possible effect upon the utility's financial stability. Supra, at page 176.

²² Cf. Depreciation Charges of Telephone and Steam Railroad Companies, 177 I.C.C. 351 (1931); Depreciation, a Review of Legal and Accounting Problems, by the staff of the Public Service Commission of Wisconsin (Madison, 1933); Proceedings of the National Association of Railroad and Utilities Commissioners, 1938, pp. 438-441, 1939, p. 371. The position of these authorities is quoted with approval by C. W. Thompson and W. R. Smith in their text Public Utility Economics (New York: McGraw-Hill, 1941) Ch. 16.

arguments against it. It is believed, however, that commissions should be freed from the judicial restraints arising from unsound decisions and be permitted to work out their policies in light of particular circumstances. To this end it is necessary to revise the judicial doctrine stemming from the New York Telephone and McCardle cases by which utilities may perpetually lay claim to earnings on

property contributed by the ratepavers.

Much of the confusion and inequity which characterizes the handling of depreciation policy today arises from commission attempts to make their decisions conform to both this unsound judicial doctrine and to the practical exigencies of the situation. To this confusion the Court, the engineers and the accountants have probably contributed in that order. Assuming the possibility that the engineers and accountants can agree upon a resonably workable depreciation policy in the future, the great bar to effective regulation remains the attitude of the Court. The Court's depreciation doctrine has been based on unwarranted assumptions of engineering infallibility and tied to the ambigious and unworkable doctrine of fair value of physical property rather than to prudent investment. Such a failure to face the realities of the situation remains the greatest bane of regulation.

BOOK REVIEWS

Modern Corporation Finance. By William H. Husband and James C. Dockeray. Chicago: Richard D. Irwin, Inc., 1942. Pp. viii, 853. \$4.25.

This book is clearly written and well organized. It should prove useful as a textbook in college classes or for reading by businessmen and others who desire

a general knowledge of the financial problems of the corporation.

The order and content of chapters follow the usual pattern of other books on corporation finance. It may, however, be distinguished from these other books by its emphasis on three points of view. In the first place, it emphasizes the legal and social responsibilities of corporation managers to their security holders and to the general public in such chapters as those on the ownership and management of the corporation, the legal and social responsibilities of corporation management and the chapter on corporation finance and public policy. In the second place, it gives considerable space to careful analyses of legislation passed in the last ten years to remedy corporate abuses including the Trust Indenture Act, Securities Act, Securities Exchange Act, Public Utility Holding Company Act and recent amendments to the Federal Bankruptcy Act. In the third place, the authors emphasize, in their final chapter and in other chapters throughout the book, the changes in corporation policies which have resulted from economic disturbances and changing social points of view during recent years. Two chapters not usually found in books on this subject are the one on the compensation of corporate executives and another concerning the effect of taxation on the financial policy of corporations. Like other writers on this subject the authors have limited their discussion primarily to the problems of the large corporation. However, books on corporation finance must continue to be so limited in scope until careful intensive studies of the financial problems peculiar to the small business can be made.

There is commendable restraint in the presentation of controversial subjects and in the estimates of recently attempted reforms which furnish ground for hope rather than fully proven accomplishment. One wishes that certain chapters contained, in addition to factual and descriptive material, more discussion of the advantages and disadvantages of specific corporate policies. However, the large number of topics covered precludes much elaboration and the carefully selected questions and problems at the end of each chapter give an opportunity for class discussion of debatable subjects.

University of Tennessee

THEODORE W. GLOCKER

Term Lending to Business. By Neil H. Jacoby and Raymond J. Saulnier. New York: National Bureau of Economic Research, 1942. Pp. xx, 163. \$2.00.

Term Lending to Business is the first of five technical studies made for the National Bureau of Economic Research on the general topic of contemporary relations between business enterprise and financial institutions. Term loans are defined by the authors as loans to business enterprise, giving rise to a direct relationship between borrower and lender, and repayable in from one to fifteen years, a type of loan which has experienced remarkable growth since 1933. The study analyzes in detail term lending by commercial banks, which are the most important lenders from the standpoint of the volume of such loans made and receive more attention from the authors than any of the other lending institutions; life insurance companies, which participate in term lending almost solely through the private purchase of short and medium term bonds; the Reconstruction Finance Corporation; and the Federal Reserve Banks. Comparative practices of these institutions are presented from many standpoints, including the total volume of term loans made, the size of borrower served by the various lenders, the size of loans, and the industries seeking term loans. A detailed statistical study of the characteristics of term loans and a factual presentation of the techniques of term lending are included.

In the treatment of the term loan itself, the study throws light on many financial problems of a more general nature. Illustrative of these problems is the effect of the development of the term loan upon small borrowers. Life insurance companies covered by the study made no loans to businesses having assets of less than \$1,000,000 and an insignificant volume to those with assets of less than \$10,000,000, while 58 per cent of the volume of loans went to borrowers with assets of more than \$100,000,000. Commercial banks show no appreciable volume of loans to enterprises having assets of less than \$1,000,000, and make 40 per cent of their loans to businesses having assets of more than \$100,000,000. In so far as the term loans of these institutions are concerned, little contribution is made to the problem of financing small businesses. While the R. F. C. and the Federal Reserve Banks have served small borrowers more than commercial banks and insurance companies, these public lending institutions have concentrated their loans among businesses having assets of between \$500,000 and \$10,000,000. Such data are small comfort to those interested in the development of better financial facilities for small enterprise.

The concluding chapter of the book, entitled "Term Lending in Defense and War", is well integrated with the rest of the study, and not merely an appendage to make the book "timely". Devoted mainly but not exclusively to term lending by commercial banks, it notes three developments of importance, namely, the gradual extension of term credits of small size, presumably to smaller borrowers; the use of the term loan to obtain new money rather than to refund outstanding obligations, as was true with a large part of the earlier term credit; and the increasing use of the unsecured loan contract, in spite of the frequent availability to the borrower of the assignable governmental claim. The authors conclude that the accumulation of experience and the development of skill in the handling of term loans during the war period will have a lasting effect on business lending policy and practice.

The authors have presented in a clear and intersting manner a tremendous volume of useful information on this important type of loan. If the remaining studies in the series retain the high standard of this work, the National Bureau

and the authors of the studies will have made a major contribution to the literature of business finance.

University of Florida

JOHN B. McFerrin

Industrial Management, Anderson, A. G., Mandeville, M. J., and Anderson, J. M. New York: The Ronald Press Co., 1942. Pp. xxi, 612. \$4.00.

A revision of *Industrial Engineering and Factory Management* by A. G. Anderson has no doubt been eagerly awaited by many teachers who had found in it the emphasis and the subject matter needed. This revision, under its new name and authorship, maintains in general the excellence of the original and in addition brings up to date all facts and illustrations. Greater emphasis has been given to relations between industry and the public in an attempt to attune modern management to its duties and responsibilities.

In the selection of a text-book on this subject the first problem is that of finding a text with the scope and balance of subject matter meeting the requirements of the course and the curriculum. Some books will be found to approach the elementary level of an introduction to business, some broad in scope covering business administration in general, and still others attempting to treat of the subject only in terms of major policies and general principles. The present volume strays in none of these directions but holds strictly to the subject, summarizing the results of modern research and industrial progress and explaining technical problems too often passed over by other texts. The balance between the various aspects of the subject is indicated by the contents as follows: two chapters devoted to public relations, two to scientific management and industrial progress, three to organization, ten to the physical plant, nine to personnel and the final seven to control. The chapters on personnel are concerned largely with time and motion study and wage determination and do not encroach seriously on the field of personnel management. In the section on control the one chapter devoted to production control hardly meets the requirements of so intricate and important a subject, for the beginning student seldom comprehends or appreciates its significance unless all aspects of control are carefully integrated and explained.

In treating so vast a field in one volume every subject must necssarily be condensed to meet space requirements and in so doing clarity is not infrequently sacrificed. Such may be noted in the present volume in the treatment of the subject of organization. The distinction made between the line and the departmental, and to some extent between the line and the functional types, may prove confusing to some students. Also, the relation between accidents and fatigue may not be clear unless one is aware of the changes that have occurred in recent years. The shorter day and week, the better selection of workers, the improvement of working conditions, and modern accident and fatigue study have apparently changed the shape of the typical fatigue curve. Distinctions should be made between former and modern experience in this field. A few other cases

of error or oversight could be noted but such are after all very few and not sufficient to deny this volume its rank among the best in the field.

University of Alabama

E. H. ANDERSON

Public Control of Labor Relations—A Study of the National Labor Relations Board.
By D. O. Bowman. New York: The Macmillan Company, 1942. Pp. xi, 504. \$5.00.

To the growing list of books and monographs dealing with the labor problem in America today, this study by Professor Bowman is a welcome addition. In his preface the author hopes that his book "will add to the growing volume of information on other problems and methods of public control." His hope is certainly realized and in addition he has given us one of the first unbiased analyses of the administration of the Labor Relations Act.

With sufficient detail to set the stage, the author presents the background of the Labor Relations Act. Then in two brief chapters he describes the law as finally passed and the constitutional issues decided by the Supreme Court. Parts two through four provide a discussion and interpretation of the decisions of the Board and of the Courts. Part five is a review of the personnel of the Board at various times and the final section is an appraisal of the Board's record.

Of particular interest to students of the labor movement are the conclusions reached with respect to the purpose of the law and the position which the Board has had to take in administering the law. There is a real question, suggests Professor Bowman, "whether the purpose of the Act was primarily to protect the employee's right to organize or whether it was to promote collective bargaining through promoting union organization." Furthermore, "so long as the collective-bargaining prescription is part of the Act, realism demands a conclusion that the Board can-not divorce prevention and promoting."

Throughout the book are illustrations of how a law, "designed to protect and police, carries implications unforeseen at the time of the passage. Yet where an agency has been created, it must of necessity meet the problem." Many things have had to be done by the Board in carrying out the law which are not specifically mentioned either in the law or in the congressional debates.

In the final section, in addition to giving case statistics, the author briefly traces the opposition from "the act is unconstitutional stage" through "the principle is right but the law must be equalized" stage to "the principle is right but the Board must be changed" stage.

The preamble of the Act, it will be recalled, emphasizes that the protection of the right to organize will lead to fewer strikes. The author presents an interesting study of the strike picture as developed from the Bureau of Labor Statistics' figures, but as usual with strike statistics they prove nothing definitely. As Professor Bowman says, "It appears valid to say in conclusion that the Act has both directly and indirectly been the cause of both more and fewer strikes."

A concluding chapter appraises the Board and the administrative process. And "it may be said that the Board has carried on and extended the best traditions of the administrative method of control." This is not to say the Board has been perfect but it has done a fine job in enforcing a new and in some quarters unpopular statement of public policy toward collective bargaining.

This study should be required reading by all who condemn and criticize the Act and the Board without knowing what they are talking about. It's a good dose of facts and analysis which, if widely taken will clear the system of lots of loose talk.

Duke University

FRANK T. DEVYVER

Personnel Management and Industrial Relations. By Dale Yoder. New York: Prentice-Hall, 1942. Pp. xxii, 848. School Edition \$4.25; Trade \$5.65. This text is a complete revision of Professor Yoder's earlier text published in

1938 under the title "Personnel and Labor Relations."

The presentation of the material is conventional. There is the background of history, the discussion of job analysis, recruitment, selection, training, service ratings, wage plans, wage policies, promotion, and personnel services. All of these problems are described and discussed in a logical way that should make the book easy to teach and one that students can understand.

Of particular interest is Yoder's chapter on statistical tools and the section of nearly every chapter describing how those tools can be applied to the problems therein discussed. Yoder's earlier edition had the statistical material so intermingled with the text material that many folks less statistically-minded that the author must have put the book aside as impossible for teaching to undergraduates, only a few of whom had ever worked a correlation problem. The present arrangement is a distinct improvement.

The author's chapter on selection is typical of his scholarly approach. Using reports published by various students, he has prepared an excellent statment of tests and measurements as applied in industry's selection of personnel. He has given us an adequate analysis of the use and misuse of tests, pointing out what every personnel administrator should know—that tests have their limitations which must be recognized.

Though Professor Yoder writes as a professor in a business school, the college teacher wishing to prepare his students for the more modern concepts of industrial relations need have no fear in using this book. The author's viewpoint is essentially realistic and therefore he considers in some detail the problems of collective bargaining with which a modern personnel administrator must be familiar. Perhaps because of space limitations, the author says too little about some of the techniques of bargaining. For example, membership restrictions are important in unions of skilled workers, but Yoder's section on that subject fails to mention that the newer unions of semi-skilled and unskilled workers have no membership restrictions, not even high initiation fees. Also, the author's section on the closed shop would have been improved had he likewise discussed it as a means whereby unions can maintain some discipline over their members. Another matter about which the author gives the wrong impression because of brevity of presentation is the suability of unions. Though they are unincorporated as-

sociations, unions can be sued in the federal courts and in about half of the state courts. Thus unions are not as irresponsible before the law as Yoder implies.

Another chapter of particular interest at this time is the one on Personnel Administration in Public Service. With the growing number of employees in federal and state government, the time must soon come, as it has come in industry, when hit and miss methods must be abandoned. Yoder adequately describes the special problems of employee relations in government work.

Each chapter has a number of exercises and problems, as well as a good selection of collateral reading. Altogether this book is an excellent text and will no doubt be widely used.

Duke University

FRANK T. DEVYVER

Our Modern Banking and Monetary System: By Rollin G. Thomas. New York: Prentice-Hall, 1942. Pp. xxiii, 812. \$4.00.

The task of writing an elementary text in the field of money and banking is not what it used to be. The two major divisions of the field now present a mass of material which must be woven together with expert skill. Moreover, much of the subject matter and illustrative material must be current or the problems presented will have little value. Undismayed by this situation, Professor Thomas has written an up-to-date, analytical survey of the broad field of money, banking and credit that is notable for its completeness, thoroughness and lucidity.

The first section of the book (twenty-nine chapters) describes the nature and problems of current commercial banking in the United States. These chapters represent a thorough revision of the author's earlier book, Modern Banking. This part of the book is largely descriptive and explanatory and the author by choice

makes little effort to appraise these principles and facts.

The second major division deals with modern monetary theory and problems. Emphasis is placed upon current legislation and this is where one finds much originality in organizing the material. The author lays special stress on the "complementary" rather than the "controversial" nature of the several theories of money and prices and makes an attempt as he puts it "to harmonize the several approaches and to use them in elucidating the central price level behavior." In this he has woven well and the result is a readable and clear synthesis of the conflicting and confusing theories.

Considerable space has been devoted to the basic question of international price relationships and equilibrium, under both gold and paper currencies, as a basis for understanding the merits of the arguments for and against monetary nationalism. In these and several related chapters, the author has done a particularly good job. Here the student will find a very clear-cut answer to

many of his questions in the confused field of monetary theory.

Only experience in using the book will tell whether the organization of the material is satisfactory. No one knows what a text is like until it is used by instructor and student. There may be some complaint about the location of chapters eighteen through twenty-one, those dealing with the history and description of the banking system in the United States. Some might think these

should come before a discussion of deposits, collection of checks, reserves, loans and discounts, *et cetera* (Chapters seven through seventeen). It is difficult at times to teach some parts of monetary and banking history before the principles governing the banking process and the value of money have been covered.

A further adverse criticism of a minor character might be made in that the author might well have appraised these modern tendencies and practices in the light of his own developed philosophy of money and banking. Recent economic ills have emphatically demonstrated the logical inconsistency of discussing money, credit and banking apart from the broader aspects of political policy and social and economic life. To some limited extent, Professor Thomas has deviated from his usual descriptive and explanatory style to do this, but only in rare instances.

This book is an excellent and valuable addition to a field well supplied with good texts. One of its outstanding virtues is that it is both readable and teachable. To the student, the historico-descriptive method will add greatly to interest since it furnishes the background material which is necessary for student understanding. To the instructor it will be attractive since it contains sufficinet material for an integrated and comprehensive course in money and banking or it is easily adaptable for a course in either of these fields.

Clemson College

JAMES E. WARD

Banking Studies. By Members of The Staff of The Board of Governors of The Federal Reserve System. Washington: Board of Governors of The Federal Reserve System, 1941. Pp. x, 496. \$1.50.

In this volume, fourteen members of the staff of the Board of Governors of the Federal Reserve System in seventeen short papers survey various aspects of the field of money and banking "in the hope that such light as they cast upon the past and present... may help to illuminate the approach to the future."

The range of subject matter might be summarized under the following general headings: the first three papers deal with historical background, the next nine survey the organization and operations of the banking system, the next two describe the organization and operation of the monetary system, and the last three emphasize the diversified activities of the Board of Governors of the Federal Reserve System.

The papers as a whole are cautious, circumspect, but never evasive. The authors give little of an interpretive nature, but rather confine themselves strictly to the presentation of facts. In this they very rigidly adhere to their purpose as set forth in the preface. The very brevity of the papers, which range in length from fifteen to thirty pages, means that only the substance of a very large mass of available information has been presented. Hence, the papers are open more to criticism for their "sins of omission rather than commission." Specialists in the field of money and banking will find little that is not already familiar to them. However, the student or the person who is not a specialist in the field will find the volume a veritable wealth of material which they are unlikely to find assembled in any other one volume.

The plan of the study with the authors' viewing of topics from numerous

angles, creates the impression of much repetition. However, in all fairness, this criticism could not easily have been avoided due to the circumstances under which the papers were prepared. They "were not intended to be a series of related chapters of a book, but to be, as the title indicates, separate studies of some of the important aspects of this country's banking and monetary system and of the role that it plays in the functioning of the economy."

Mention should be made of the well chosen collection of charts used as illustrative material in the several studies and of the numerous statistical tables to

be found at the back of the book.

Regarded as a source book, this volume contains a mass of valuable material presented with a minimum of technical terms and in brief form. Not only will the reader find many important facts concerning modern problems in the field, but he will also find an adequate treatment of the historical background which will enable him to trace the events leading to the present organization and operation of the monetary and banking system. In a world of controversial issues and particularly in a field of much theoretical controversy, it is pleasant to come across a book like this, which builds upon a factual foundation of history and experience, leaving its readers to draw their own conclusions without any attempt to opinionate them in any way.

Clemson College

JAMES E. WARD

Fiscal Planning For Total War. By William L. Crum, John F. Fennelly and Lawrence H. Seltzer. New York: National Bureau of Economic Research, 1942. Pp. xxv, 358. \$3.00.

This volume, first in the Fiscal Policy Series of the National Bureau of Economic Research, is a work of high attainment in statistical analysis and interpretative judgment. It has been the purpose of the authors to present a scientific study of the task, scope and problems of war finance. Thus it is hoped that from a survey of the various financial devices available, "attention can be directed to the perplexing question of how these devices can be combined into a war finance program." Although assisted by an active staff and a roster of consultants, the Directing Committee of the three authors hold the responsibility of authorship.

At the peak of the war effort in 1918, about twenty-five per cent of the aggregate national output was directed to military purposes. If the military outlays of 1943 reach a total of 70 billion dollars approximately one-half of our gross national product will be diverted to the war. While some part of this may be obtained through a more intense utilization of our productive resources and from a deficiency in the maintenance and replacement of capital goods, it is inevitable that there must follow a substantial curtailment in the living standards of the American people. The decline will be especially severe in durable consumer goods. The gross national product including both civilian goods and services and military outlays is estimated in 1942 at 125 billion dollars and in 1943 at 128 billion dollars. These estimates are based on "1940 dollars" and should be adjusted in accordance with changes in the cost of living index since that time.

On a similar basis of calculation the net national income of individuals in 1943

is estimated 109 billion, of which 18 billion will be received by income groups below \$1750, 18 billion by income brackets above \$10,000, with the remainder, 73 billion, falling between these limits. There is a clear implication for financial policy, therefore, that the vast sums of money which the government requires cannot possibly be raised from those with incomes above \$10,000, but must come in large amounts, by taxation and borrowing, from the middle and lower income groups. An ideal financial program should be designed not only to avoid substantial inflation but also to remove through taxation and borrowing the purchasing power of individuals "in excess of consumption expenditures compatible with the most effective war effort." Direct controls through priorities, allocations and rationing should be used with a judicious combination of adequate taxation and sound borrowing.

In chapter six the authors consider the merits of taxation and borrowing and conclude that there is no single combination of these factors that would be ideal under all conditions. Taxation is preferable to compulsory lending for all except unusual purposes, while borrowing from voluntary lenders, despite its many advantages, is likely to prove ineffective in curtailing private consumption. Taxation induces economies in spending not realized through the media of loans. In succeeding chapters a study is made of tax needs and of the various sources of taxation in the Federal structure. While expediency and necessity may require the imposition of heavy taxes on corporations in the War period, the "marginal tax burden" should not be so great as to discourage maximum production for the War effort. On the question of graduated excess profits tax rates it is contended that the principle of ability to pay does not necessarily apply to taxation of corporations and that there is no clear reason for imposing a higher marginal rate on corporations with large, as compared with small, earnings. Again the scale of tax rates on individual incomes should be so adjusted as to "exert a minimum depressive effect upon output." Hence it may be more significant to observe the possible effects of the tax on the marginal addition to income than the amount of the entire tax on total income. Furthermore for the principal types of income in the lower brackets it is highly desirable that collection be made at the source.

In other portions of the book, an examination is made of indirect taxes in the form of excises, sales and customs, of social security taxes, of government borrowing and of the outlook for non-military expenditures. Subsequent developments might perhaps lead the authors to modify in slight degree certain of their conclusions, but the great merit of the work is its well balanced and closely reasoned analysis of our vast fiscal war problem. It should prove highly valuable to those who have the responsibility of determining fiscal policies.

University of Virginia

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TIPTON R. SNAVELY

Financing the War. By The Tax Institute. Philadelphia: The Tax Institute, 1942. Pp. ix, 357. \$2.50.

This book contains a foreword by Professor James W. Martin and consists of eighteen papers which were presented as the Symposium of the Tax Institute,

held in Philadelphia in December, 1941. It is divided into six parts as follows: Surveying Federal Finances, Excess Profits Taxation, Control of InflationThrough Revenue Policies, Adjustments in Easing Impact of Defense Taxes, Defense and War Revenues in Other Countries, and Tariffs and International Relations. Although the various papers were delivered just before the attack at Pearl Harbor, they form a notable contribution to the literature on fiscal war problems. For example, the discussion of measures for the avoidance of war inflation, of the experience of other countries in taxation and price control during the war period, and of the significance of tariffs and international relations following the war will be found very stimulating and helpful. As is stated by Professor Martin in the foreword, "No public finance discussion could be more timely than Financing the War."

University of Virginia

TIPTON R. SNAVELY

Economic Problems of War. By George A. Steiner and Others. New York: John Wiley and Sons, Inc., 1942. Pp. vii, 665. \$3.50.

This war is one of action, rapid movement and frequent change. When Steiner and his more than twenty five associates prepared the twenty six chapters which have been assembled into this verbose book, the war was yet young. The co-authors had little to guide them on many important subjects. The probable cost of the war was and still is unknown. The manpower needed for our army, navy and war production could not be even estimated. The possible outcome and length of the war even now, six months after Steiner wrote his preface, is clouded with many uncertainties. The task which the authors faced was not an easy one; indeed it might be compared to the describing of a long parade by giving a detailed picture of the band which preceded it.

Those chapters describing the organizations set up in England, Germany, and Japan for procuring the tools of war, for meeting the problems of civilians, and for the conduct of the war are interesting. The chapters descriptive of comparable organizations in the United States appear to be based more upon government bulletins and press releases than upon knowledge of the frequently

changing and complex facts.

Those chapters in which consideration is given to probable post-war conditions, economic, industrial, financial, and political should not have been written. Post war problems of all kinds will depend upon things far beyond our present horizon, making any speculation as to what may be expected or accomplished to fall into the catalogue of guessing, wishful thinking, or predjudice.

This reader is much disappointed that no important discussion is assigned to the very live subject of current federal expenditures—, outlays having no con-

nection with the war effort.

Perhaps writers would be wise to refrain from attempting to cover adequately the subjects discussed in this book until the war has taken on a more definite character and until the outcome, cost and duration may be more accurately estimated.

Formerly Colonel, U. S. Army Air Service Reserve. PAUL HENDERSON

Agenda for a Postwar World. By J. B. Condliffe. New York: W. W. Norton & Co., Inc. Pp. 232. \$2.50.

The object of this interesting work is "to raise broad questions of principle." It is a timely supplement to the same author's Reconstruction of World Trade.

Most of the book is concerned with the probable situation in the transition period immediately following the cessation of hostilities. Restoration of employment in peace-time industries in the United States must be accompanied by restoration of a "flexible peacetime equilibrium between costs and prices." This aim is important in order to avoid the inflationary boom and the subsequent slump which followed the last war. The attainment of this aim assumes that the United States will take a premier role in post-war leadership.

Professor Condliffe's discussion of the general aim of social security and social welfare emphasizes the need for improved nutrition, better housing and more stable employment. The establishment of decent social standards does not necessarily conflict with economical organization of post-war international trade. Much will depend on whether controls established in the transition period lead to freer competition among producing areas and among competing products. Unless international trade is promptly restored within a framework of smoothworking markets, it may lose touch with any test of economic efficiency and be conducted by political bargaining. Relinquishing the tools of economic warfare such as exchange control and protective tariffs will not be easy. Opposition can be expected from those who wish to follow unhampered operation of expansionist monetary policies, organization of national production along socialist lines and pressure groups seeking to depreciate or control the exchange rate for selfish reasons.

While Professor Condliffe's proposals for an economic peace are generous enough, he recognizes the necessity for accompanying "strict political and even military conditions." Before the United Nations can claim a total victory, they must win "the task of devising a form of world order in which aggression clearly will not pay."

Washington, D. C.

W. PORTER McLENDON

Parity, Parity, Parity. By John D. Black. Cambridge, Mass.: The Harvard Committee on Research in the Social Sciences, 1942. Pp. 367. \$2.00.

The Three Parities are the respective shares of the national dividend received by labor, capital, and the farmer. In the struggle to divide the available national income equitably among these three, it appears that the farmer has not been able to obtain his "fair" share of the spoils. This unequal contest came to a showdown in the 20's when agriculture was passing through a severe depression. There was much discussion and many proposals were made as to what should be done to remedy this situation. Two men, Hugh S. Johnson and George N. Peek, devised a simple formula which, in their opinion, would guarantee the farmer his "fair" share of the national income. The price of farm products should be high enough to provide farmers the same purchasing power as they had in some base periods. This price was called the "fair exchange value of farm commodities."

This concept became known as parity for agriculture, and after much discussion was accepted by Congress in the act providing for the Agricultural Adjustment Administration.

It is problems associated with the struggle for parity that Black discusses in this book. The reviewer is of the opinion that it is the most thorough and thought-provoking discussion of this subject that has yet appeared. The discussion is by no means narrow in scope or point of view. At the outset the author explains clearly what he means by parity. This discussion is followed by three or four chapters which provide the setting for his major thesis. Then in a number of brilliant chapters, amply supported by statistical data, the techniques which have been and those which may be used in determining parity prices and income are examined. The necessary price used in World War No. I is brought out, dusted off, and its advantages and disadvantages discussed. The old idea of prices based on the cost of production, a subject close to the heart of many congressmen, is discussed and its defects clearly stated.

There are a number of chapters which do not bear directly on the subject of parity prices or income, yet they are essential to a clear understanding of the problem of obtaining a "fair" share of the national income for the farmer. For example, the chapter on the highly debatable subject of "Scarcity vs. Abundance" is one of this type. A chapter on "The Farmer's Interest in Wages" is among the best in the book and the author is on solid ground when he points out that high industrial wages do not necessarily mean prosperity to farmers but rather that full industrial employment is what is needed.

The author is a realist. He does not look upon the parity scheme as the final answer to the problem of distribution of wealth but he does realize that the parity concept is imbedded in the minds of farmers and the Farm Bloc congressmen. He is willing, therefore, to go along with the farm interests in their effort to obtain a higher income for the farmer. At the same time, he does not hesitate to criticise the techniques which have been employed for this purpose. He even goes further than this and suggests improvements in the techniques which will make them more workable.

North Carolina State College G. W. FORSTER

The Social Economics of Agriculture. By Wilson Gee. New York: Macmillan, 1942. Pp. xii, 720. \$4.00.

This book is a revision of one by the same title published in 1932. A good part of the original book has been rewritten, and all materials have been brought up to date. In order to keep the new edition from being too large and expensive, several chapters in the first edition have been omitted from the revised edition.

The Social Economics of Agriculture is really two books in one: Parts one and two are agricultural economics; parts three, four, and five are rural sociology. It would hardly be feasible to include in one book all chapters that usually appear in books devoted exclusively to either subject, so the author has selected from each field the chapters that occur most frequently in the specialized texts. Part

one, five chapters, deals with the Setting of the Agricultural Problem, and part two, nine chapters, with Economic Elements. Parts three, four, and five are all social, and organized under the headings of Social, Political, and Rural institutions.

This book is written especially for those schools not in a position to offer two separate courses, in rural economics, and rural sociology. It is designed to give a sound introduction to each field and to integrate the two. Its author feels that there has been too much specialization; that the line between rural economics and rural sociology has been too sharply drawn. This book is designed to view the agricultural problem not simply as an economic, sociological, historical, or governmental one, but to present it in combined perspective. He accomplishes this by including chapters from each field under one cover, rather than giving a synthesis in each chapter. In other words, one-half of the book is rural economics and the other half is rural sociology. It is a very good two-in-one volume. As a textbook, it is quite teachable, being the product of years of experience in teaching the materials used. It is also quite readable for such laymen as are interested in rural social-economics. Each chapter closes with a set of questions which review the topic and suggest further study. Also each chapter has a carefully selected list of suggested readings.

One final word. This volume is very liberally sprinkled with quotations from other works. Perhaps one-third of the volume is taken up with quotations, many of which run from one to three pages. These are well selected for the most part, and add to the value of the book for content and reference purposes, but there is much more quoted material than one generally finds in a text. Generally the quoted sources are not listed as suggested readings. Perhaps the assumption is that the reference has already been given.

The first edition of this book was well received. The present edition is an improvement, and thoroughly up to date.

University of North Carolina

S. H. Hobbs, Jr.

Consumers' Cooperatives in the North Central States. By L. C. Kercher, V. W. Kebker, and W. C. Leland, Jr. Minneapolis: The University of Minnesota Press, 1941. Pp. xvi, 431. \$3.50.

The authors limit their investigation to cooperatives in Minnesota, Wisconsin, and Michigan. This limitation, however, is by no means a defect, for in this area we find the greatest extension of the cooperative movement in the U.S. According to the Bureau of Labor Statistics, in 1936 more than 70 per cent of the cooperative development in this country was located in this section.

The book is divided into three parts. Part I presents a descriptive analysis of the consumer enterprises in the selected territory. For the success of this type of enterprise in these states much credit is given the Finns. Low income, homogeneous groups provide congenial soil for the development of the consumer cooperative movement. Part II undertakes an economic analysis of the cooperative set-up. On the basis of this analysis the author of this section makes suggestions for the guidance of those directing the policies of cooperatives. At

times, however, the writer of this section allows his interest in economic analysis to lead him into unprofitable speculation. For example he enters into a discussion of the deflationary effect of the hoarding of their funds by cooperatives and of the inflationary effect of the later spending of these hoarded funds. Probably such hoarding will be so inconsequential as to render such a discussion purely academic. Unless the managers of Finnish cooperatives are well versed in economics they will not be able to follow very easily the discussion and suggestions made in terms of marginal cost, marginal revenue, etc. These criticisms are not meant to imply that there are not many stimulating suggestions in this section of the book. The section closes with a comparison of a cooperative commonwealth, a socialistic state, and our capitalistic system.

Part III contains eighteen detailed class studies, of which fifteen are of local cooperatives, and three are of wholesale cooperatives. A typical treatment of a local cooperative includes such topics as: a description of the community; organization and administration; membership and internal relationships; managerial policies and operation trends; financial conditions; the cooperative in the community; the cooperative's part in federated activity; and significant aspects of the particular case. The case study of a wholesale will include its history; its price policy; its credit policy; its buying policy; a profit and loss statement; and a

balance sheet.

Any one interested in the economics of cooperatives or who is faced with the responsibility of shaping the policies of a consumer cooperative will find this book of great value. It calls attention to the pitfalls to be avoided, and to the conditions and the policies which make for success.

University of North Carolina

J. M. LEAR

Farm Records. By John A. Hopkins. Ames, Iowa: Iowa State College Press, 1942. Pp. xiii, 258. \$2.75.

In this text material comprising twenty-nine chapters of a 1932 edition by the same author has been revised and regrouped in twenty-one basic chapters. Of these the first nine deal with the farm budget, physical performance and valuations, four describe double and single entry bookkeeping and multicolumn records, six are devoted to analyses of the farm records and uses made of the results and two to special problems. The author's classification of types of records which may be kept agrees with that of Ball in U. S. D. A. Bulletin 511. The function of farm records in facilitating good farm management procedure is clearly emphasized; in fact the first nine chapters would be equally appropriate in a farm management text, but this tie up, obviously, adds to the practical value of the course.

This text appeals as being both adequate and highly adaptable. For students who have not previously acquired a working knowledge of double entry book-keeping (which, as Dr. Hopkins states, "comprises a minimum requirement,") additional teaching material will be needed but most instructors prefer to supply this according to individual needs. The author may be criticized for not mentioning the meeting of income tax and other governmental demands as one of the

objectives of farm records. However, it is doubtful if he could devote a chapter to any treatment of the subject which would not shortly be out of date, whereas well kept farm records will provide all information needed to meet such demands. Some teachers of farm records will disagree with Dr. Hopkins as to the emphasis or lack of emphasis given to the various topics but the extreme adaptability of this text keeps such disagreements from being serious.

Clemson College

W. T. FERRIER

Soil Exhaustion and the Civil War. By William Chandler Bagley, Jr. ington, D. C.: American Council on Public Affairs, 1942. Pp. 101. \$2.00. Soil exhaustion is coming to be recognized as one of the vital factors in American economic and social history and an increasing number of social scientists are studying the social implications of soil deterioration, especially in the South. This little volume deals primarily with the influence of soil exhaustion upon the formation of those attitudes among Southerners that led to secession and civil war. Mr. Bagley has been handicapped in his study by the paucity of precise quantitative records. He has used the 1840, 1850, and 1860 census reports on agriculture, but he feels that one should not attach too much significance to trends revealed by these statistics, "particularly in view of the wide variation in agricultural production due to weather conditions and other extraneous factors affecting yields which could not be eliminated." He has quoted extensively from the agricultural writings of John Taylor, George Washington, Edmund Ruffin, and other contemporary writers, and he has made good use of the best secondary accounts of Southern agriculture, particularly Craven, Phillips, Gray, Vance, and others. Apparently he has made no use of one of the finest and most extensive sources of materials on Southern agriculture, the manuscript plantation journals, such as those in the Duke and North Carolina collections.

Mr. Bagley discusses the various reasons for soil exhaustion in the South—the great abundance of land, the emphasis on "hill crops," the overseer system, the one-crop method of farming, the use of "clumsy and inefficient tools," and other factors. He thinks that slavery was a primary cause of soil exhaustion and insists that slavery "answers well only under a single-crop regime." He suggests that "without a single-crop cultivation on a wide scale, slavery would have died out in the South at about the same time it did in the North." This is an interesting observation, but it would be impossible to prove. The problem of soil exhaustion was not peculiar to the South, and within the South it was not limited to the plantation areas. Many planters did not follow the one-crop system, as scores of plantation journals reveal. The South was not limited to a one-crop system of staple crops by any means. In fact, the 1850 census reveals that 60 per cent of the nation's corn, 33 per cent of the nation's oats, and 27 per cent of the nation's wheat were produced in the South. The South was less committed to the one-crop system in 1850 than it was in 1940.

The author suggests three possible explanations of the exhausting methods practiced by Southern cultivators: (1) perhaps the methods were the most profitable in the short run; (2) possibly the planters were not acquainted with proper

cultivating techniques; (3) perhaps there were conditions that prevented the cultivators from following soil-conserving practices.

In spite of the title of the book, Mr. Bagley has very little material on the immediate background of the Civil War. This is the most disappointing portion of his study. He says that slavery had to expand into the new territories to survive and he points out the tremendous economic significance to the slaveowner of the threatened territorial limitation of slavery. The reviewer wonders if Mr. Bagley knows how few slaves there were in Kansas in 1860! The author concludes his study with this unusual statement: "The slaveholder, then, was the propagandist of the Civil War. He had a real incentive to create attitudes of fear and hate. The issues of states' rights, the morality of a traditional system, tariffs, and other points of divergent interest were grist for his mill. His appeal was highly successful; for when the time of slave limitation finally came, the South did fight for the "glory of God, the preservation of civilization, and the maintenance of honor." There can be no doubt that many Southerners believed that they were fighting for these very things. The reviewer cannot accept the generalization that the slaveholder was the propagandist of the Civil War. There were other propagandists, many of whom lived north of the Mason and Dixon line, and there were other reasons for the war than the question of slavery extension.

The book has a satisfactory bibliography, but a very poor index.

University of North Carolina Hugh T. Lefler

The Economics of Price in the Milk Industry. By James M. Stepp. University, Va.: Bureau of Public Administration, 1942. Pp. ii, 154. \$1.00.

This book has appeared at an opportune time. The tendency toward government control of the milk industry has never been more evident than during recent years. Granted that this tendency is desirable and necessary, the question arises: What are the economic factors in the production and distribution of milk which should govern the determination of price policies? Dr. Stepp has endeavored to answer this question.

The prevalence of milk market control as a temporary measure without long-run objectives and the tendency of such regulatory measures to be renewed and continued point to the use of economic theory. Such theory may clarify some of the complexities of the industry, and provide a logical and reasonable explanation of why the industry has taken its present organizational pattern. The study is essentially a theoretical analysis of price-making forces in the milk industry. While it is based largely upon factual data gathered by other researchers it, nevertheless, represents a real contribution in the analysis of this data.

It is unfortunate that the publishers decided to omit the extensive appendices which Dr. Stepp intended to be included in the monograph. However, this omission has not seriously impaired the value of the book.

This monograph merits the careful study not only of those who are responsible for the determination of price policies in the milk industry, but also of students who are concerned with price analyses in general.

University of Virginia

GEORGE A. WARP

STATE REPORTS

ALABAMA

Alabama industry is still operating at an extremely high level of activity, according to figures just released by the Bureau of Business Research of the University of Alabama. Index numbers adjusted for seasonal variation only, with 1935-39 average month equal 100, show Building Contracts awarded in September at 445, Electric Energy consumption at 345, Cement consumption at 223, Bank Debits at 220, and Cotton consumption at 185. Alabama Cotton mills during the first eight months operated their spindles on an average of 517.1 hours per month out of the possible maximum of 720 hours. Indexes of employment are for the most part irregular. For the month of September the Number on Payrolls was 0.9 above the previous month and 26 per cent above a year ago; the Amount of Payrolls was 2 per cent less than the previous month but 66 per cent above the same month a year ago. State Employment Service Placements were 41 per cent above the previous month and 11 per cent less than a year ago; Unemployment Compensation for New Benefit Claims were correspondingly 32 per cent less, and 8 per cent greater. Erratic movements such as these indicated a period of change or adjustment and possibly the later stages of adaptation to a more stabilized situation.

In trade activity the standard indicators reveal the strong rising movement which would naturally accompany the tremendous industrial gains, but also reveal the harnessing of the rise by scarcity and government restrictions. That the restrictions have just begun to take effect is indicated by the fact that gasoline sales and life insurance sales are below 1941 levels but still above 1939 levels. Alabama sales tax payments indicate that rationing and scarcity were just beginning to level off the sales curve as the third quarter closed. The quantity of goods sold had begun to level off or decline somewhat earlier than the dollar sales, but the fairly regular increase in prices operated to keep sales totals higher than quantity totals.

The amount of Alabama sales tax payments in September is not available at this writing, but the total for the first eight months of the year is estimated by the Bureau to be \$8,121,686.00. This is 89 per cent above the same period in 1939, 66 per cent above the same period in 1940, and 37 per cent above the same period in 1941. Since the tax is a 2 per cent levy on gross sales of almost all commodities sold at retail, it is probably a fairly reliable indicator of the conditions of retail trade (in dollar volume).

Preliminary figures for September and October already indicate that the fourth quarter will probably show a radically changed picture as price regulations, shortages, and a further shift from construction to production become more effective.

This does not mean that the total industrial activity is likely to decline, but that certain indicators which reflect heavy construction have probably passed their peak, and that other indicators which reflect production will probably level off or lower their rate of increase. The government's announcement of October 21 that 1943 construction quotas are being cut by one third suggests that the steep increase in rates in many lines cannot continue.

KENTUCKY

This correspondent was in error in the July issue in stating that proposed repeal of the \$5,000 constitutional salary limit for state officials (Governor excepted) was to be voted on in November. The issue is to come up in November, 1943, at the time of the election of state officers.

The recent increase in the federal cigarette tax has created a grave problem for the so-called ten-cent brands, several of which are manufactured in the state. A flat tax of six and one-half cents a package places these "economy" brands at a distinct disadvantage in competition with the higher priced product, since their chief selling point has been the price differential. The lower priced brands are at an especial disadvantage in those states, like Kentucky, which impose a state levy of one cent upon each ten cents, exclusive of tax, or fraction thereof of retail sale price; since an increase in retail price from ten cents to eleven cents automatically raises the state tax to two cents thereby forcing the retail price in most cases to twelve cents. In the Congress Kentucky interests supported a graduated federal levy but were bitterly opposed by North Carolina interests. In the rush to get the revenue measure enacted the issue did not receive the attention it deserved.

In June the Commissioner of Revenue told the county tax assessors that, as an experiment, the Tax Commission was going to make no blanket assessment increases next year. He pointed out the injustice that always devolved upon those property owners who assessed their holdings equitably if their county were raised by the Commission. He warned the commissioners that the responsibility was going to be placed upon them and that some of the counties would be in dire straits if assessments were not improved.

The state's highest court has upheld a legislative act of 1942 which permits state departments and agencies to hire their own legal counsel independently of the Attorney General. The court warned that the act could easily be subject to abuse. The Attorney General attacked the measure as a "ripper" designed to obtain revenge for his attacks upon the administration.

In June thirty concerns operating chain stores in the state instituted proceedings in the state's courts to recover \$265,000 in chain store taxes paid since the present act (1940) became effective. The act was passed to replace one voided by the courts.

The Attorney General has recently won two rounds and lost one in his squabble with the administration. The Court of Appeals refused his plea of unconstitutionality of appropriation acts that left the expenditure, provided the revenue were sufficient, of over eleven million dollars in the 1942–1944 biennium to the discretion of the executive branch; but he won his plea to enjoin the levy of a 2 per cent contribution for party campaign funds upon state employees and also

¹ University of Alabama Business News, by J. B. McMillan.

his plea that toll bridges owned by the state be freed as soon as sufficient tolls had been collected to retire the bonded indebtedness. The Highway Department was continuing collections to accumulate a repair and contingency fund.

The issue of local responsibility for care of indigents has finally been decided by the Court of Appeals in favor of the cities. The court ruled that it was the obligation of the county to provide such care. The counties had held that the cities should pay in proportion to the value of the property in the city to that in the county as a whole. The effect of this decision has already been seen in increases in certain county tax rates.

A Legislative Council report on state liquor monopolies has recently been completed. It was prepared by Glenn D. Morrow and Orba Traylor, working under the direction of Professor James W. Martin, Director of the Bureau of Business Research of the University of Kentucky.

University of Kentucky

RODMAN SULLIVAN

MISSISSIPPI

According to both the State College and the University of Mississippi Bureaus of Business Research figures, the general business situation in this state has been constantly improving. However, the picture may not be quite as bright as the present figures indicate. Even though sales in many lines are higher than ever before, costs are also higher. Frequently there has been considerably more than a proportionate increase in costs and sometimes difficulty is experienced in replacing stocks at any price.

Farm income is high and will probably remain high for the duration, but considerable difficulty is expected with both the farm and general labor situations. In some ways this will be more true of Mississippi than most other states because of the peculiar normal labor supply. There is a very small percentage of labor in the state that can be called irreplaceable and consequently most of the supply is subject to draft. Also there is a large group composed primarily of negroes who work in town when they can get jobs and farm when they cannot. Most of the people in this group are of questionable value to either the armed service or as members of the state labor supply, but those who represent the best of the group probably will be drafted since they have not farmed consistently enough to warrant exemption. The situation indicates that the state may be left with only the least desirable persons to fill the local labor needs.

During the fiscal year ending May 31, 1942, the state of Mississippi collected \$348,709.80 through its timber severance tax in its second year of operation. This represents a gain of 47 per cent over the first year. There were, however, two important abnormal factors contributing to the increase. First, it should be noted that during the first year the organization for collecting the tax was new and consequently did not collect as large a percentage of the amount due. Even now the Timber Severance Tax Division does not claim one hundred per cent efficiency in collections. The second factor in the increase was the war demand. This caused both the amount of timber cut and the value of such timber to in-

crease and since the tax is based on valuation, not amount, this alone would account for a considerable portion of the gain.

It may be said for the timber severance tax of this state that after two years of operation more money has been returned to county treasuries than had ever been collected under the old ad valorem taxes and with less complaint on the part of timber growers. Another advantage that has accrued to the state is that it has a much better idea of its forest situation and consequently is in a better position to adopt measures for control and improvement.

University of Mississippi

FRANCIS S. SCOTT

NORTH CAROLINA

Economic activity in North Carolina is dominated by the War Production Program. This applies directly to agriculture and all forms of textile manufacturing as well as to ship building, airplane parts, chemical industries, and lumber products. War production indirectly influences furniture manufacturing, tobacco manufacturing and other forms carried on in North Carolina. The need for additional currency for the crop marketing period has led to a sharp increase in the issue of Federal Reserve Notes for the district of which North Carolina is a part. Bank debits in the nine largest cities of the state increased approximately 9 percent in July, 9 percent in August and 12 percent in September with approximately 23 percent for the first three quarters of 1942 over the same period of 1941. Demand deposits continue to increase along with commercial loans. Public expenditures on consumption goods have decreased in spite of increasing incomes. This is due largely to more stringent regulation of credit terms and installment buying together with the shortages in the items on which the public is accustomed to spend a large part of its income. The last items include automobiles, tires, gasoline, bicycles, sporting goods, refrigerators, furniture, and other luxury goods made from critical war materials. Building construction continued to decrease in private construction but government building remained at a relatively high level.

Industrial Production in those industries not using war materials and those which could convert their equipment to some form of war production are running at or near full capacity. The cotton textile mills are running two shifts on the average and approximately 80 hours per week. Cotton consumption has increased steadily during the third quarter of 1942 and was 12 percent above the same period of nine months of 1941. Average spindle hours per spindle in place was 473 in August and 484 in September compared with a national average of 458 and 468 respectively. Rayon filament yarn deliveries increased approximately 5 percent for the first nine months of 1942 as compared with the same period of 1941. Rayon staple fiber which is becoming increasingly important increased 11 percent over the first nine months of 1941. Tobacco manufacturing continues to increase and for the past four months has set a new all-time record in each month in the production of cigarettes. Railroads are handling

the largest volume of both freight and passenger travel in their history. Furniture manufacture and hosiery manufacture are the dark spots in industrial production in North Carolina. Labor and material shortages are largely responsible for their decline.

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The agricultural picture looks very good despite the expectation that some crops will not be harvested fully due to farm labor shortages and excessive farm wages. Cotton production is estimated to have increased approximately 18 percent over the 1941 crop and prices are fairly well stabilized at about 10 percent above those of 1941. Cotton farmers should receive approximately 30 percent increase in cash income from this year's crop. Tobacco growers are expected to produce about 26 percent more tobacco and prices are on the average about 33 percent higher than in 1941. Therefore the farmers should receive approximately 68 percent more for the 1942 crop than the 1941 crop. The peanut crop has been increased about 54 percent following an intensive program to enlarge the supply of peanut oil for war purposes. Other crops that are expected to increase in yield are oats, hay, Irish potatoes, sweet potatoes, and commercial apples. Wheat, corn and peaches are expected to decline from the 1941 crop figures. Farmers' costs have materially increased during 1942. Farm wages have been increased from \$1.60 to \$2.05 without board and from \$1.15 to \$1.60 during the crop season. Increased costs and labor shortages will probably make some inroads on the expected farm incomes. An intensive program for homecanning of food is being made throughout the nation to cope with expected food shortages. It is estimated that rural non-farm families will average 184 jars per family and that city canning will run about 41 jars per family. Farmers who are closer to the source of fruits and vegetables are expected to can 243 jars per family. Poultry farmers have increased chicken production about 10 per cent and egg production about 20 per cent. Both poultry and egg prices are good and this source of income should prove very profitable to farmers. Federal-state grading stations are being set up throughout the state and farmers should get prices commensurate to quality.

Wholesale and retail sales managed to show a slight increase during each of the three months during the third quarter of 1942. This is due largely to the fact that dealers bought heavily in anticipation of commodity shortages and are at present selling out of these large inventories. It is expected that both wholesale and retail sales will begin to decrease as soon as these inventories are exhausted as there will be little likelihood of dealers being able to replenish supplies. An unexpected increase in furniture sales for each of the three months was due to special sales put on during this period. One explanation for the increase in sales during the period was the rush to buy luxury goods before the increase in Federal taxes set for October 1.

Employment decreased slowly but steadily during the third quarter. Total payrolls were down in July but increased in August and September. Weekly earnings remained about the same in July as in June but were up about 7 percent for the next two months. Average hourly rates increased all three months and were up about 6 percent for the period. There was a distinct tendency for the number of children below the age of 18 to get jobs to increase during the period. During the month of September there were 3,596 work permits issued of which 3,013 were to young people 16 or 17 years of age. Of the total permits issued. 2.067 were for boys and 1,529 for girls. Five hundred and eighty-three permits were issued to children under the age of 16, of which 354 were boys and 229 girls. The State Department of Labor continued to find numerous firms who were violating either the State Labor Law or the Fair Labor Standards Act. During the month of September, of 158 firms inspected, which were engaged in interstate commerce, only 63 were in full compliance. Fifty-two were violating the requirement to keep adequate payroll records and 43 were violating the basic wage and hour provisions of the law. The State Department of Labor has accepted the responsibility of enforcing the Walsh-Healy Act or the Public Contracts Act. The dark spot in the labor picture other than the general labor shortage is the condition of the white-collared worker. Cost of living has materially increased with commensurate increases in white-collar wages and other members of families otherwise not employed are either looking for work or have already found jobs in industry. The same holds true for farm families. Labor shortages are being partially solved by farm women and children helping with the harvesting of crops.

State revenue decreased for the three months ending September, 1942, as compared with a like period of 1941. The Revenue Division which collects the inheritance, privilege, franchise, income, sales, beverage, gift, intangible taxes and miscellaneous revenues showed an increase of \$1,947,497.08 or 17.20 percent. The Gasoline Division, which collects the gasoline tax and the gas and oil inspection fee, showed a decrease of \$2,329,959.67 or 27.11 percent. The net effect was a decline of \$382,462.59 or 1.92 percent. The collections of the North Carolina State Department of Motor Vehicles, which collects from licenses, drivers' licenses, titles and bus and franchise, showed a net decrease of \$63,061.55 or 8.29 percent.

SOUTH CAROLINA

Governor R. M. Jefferies, who will establish something of a precedent when he returns to the General Assembly in January as the Senator from Colleton, deserves recognition for having given the state a sound and progressive administration during a very trying period in its history. Among other things, the retiring governor caused to be set up a Commission to prepare the state for peace. This body, composed of representative leaders from almost every field of service, is already at work on an ambitious program designed specifically to:

- 1. Plan a peace-time economy for the state.
- 2. Recommend needed reorganization of the State government.
- 3. Suggest a sensible and stable tax program, and
- Prepare suggested forms of legislation needed to put its recommendations into effect.

While it is too early to predict the results which will flow from the labors of this Commission, a hopeful sign is to be seen in the fact that the Governor who caused it to be created will occupy a prominent and influential position in the Assembly which will consider its recommendations. After all, the war may be the signal for long awaited and frequently suggested improvements in the affairs of government in South Carolina.

The State Tax Commission forecasts a drastic decline in state revenues which may substantially alter the current picture of state finances in South Carolina. Normally the income of the state government is around \$40,000,000 but based on present trends a decrease of nearly one-fourth is in prospect for the fiscal year which ends June 30. Most of this is the result of greatly diminished receipts from gasoline taxes. This will be disturbing news to those who, a few short years ago, successfully resisted all efforts to "pool" the state's revenue receipts, nearly half of which came from taxes on motor vehicles and motor fuels and was expended by the State Highway Department. Now that the tire is on the other wheel, it will be interesting to observe the reaction of the General Assembly to further attempts in the direction of bringing all tax receipts under constant legislative scrutiny.

VIRGINIA

A recent three-day special session of the Virginia General Assembly made provision for the virtual elimination of the state's debts. While the state government still has outstanding obligations of \$18,550,673.38, it is now, notwithstanding, virtually debt free.

The special session was called by Governor Darden for the purpose of putting to work the large amount of surplus that had accumulated in the state treasury. Overdrafts had been charged to surpluses, and at the beginning of the present fiscal year on July 1 the surplus had reached \$18,639,880, and sinking fund assets totaled \$11,247,518.23, or a total of \$29,887,398.23 in the two funds.

While sinking fund moneys are invested in income-earning securities, only about \$5,000,000 of the state's general account balance of \$36,000,000 was earning interest. At the same time, the interest on the state's bonds continues and for the period until the debt is finally liquidated in 1966 the interest will total approximately \$6,863,000.

Under a plan outlined by Governor Darden and accepted by the General Assembly there is to be appropriated to the sinking funds from surplus revenues sums sufficient, with the amounts already in those funds, to meet the state's debts as they mature; and the sums so appropriated will be invested in securities

redeemable on dates corresponding with the maturity dates of Virginia's own obligations and in corresponding amounts. It is estimated that these investments over the period of operation will yield well over \$5,000,000. The commissioners of the sinking fund were directed to invest the sinking fund moneys in federal securities or in those of the state, its institutions, or political subdivisions. A similar measure authorized the investment of funds in the state treasury in excess of current requirements in similar securities. Counties, cities, and towns were also authorized to invest moneys from any of their funds in a similar manner.

The University of Virginia

GEORGE T. STARNES

PERSONNEL NOTES

C. L. Allen, formerly instructor at Duke University, is now with the OPA regional office in Atlanta.

Charles P. Anson has been given a leave of absence from Roanoke College to accept a position with the Roanoke office of the OPA.

L. J. Arrington has resigned as instructor of economics at North Carolina State College to take a position in the State Office of OPA in Raleigh, North Carolina.

Edward Knox Austin, associate professor of commerce in the Extension Division of the University of Alabama, is giving a part of his time this session to campus teaching.

M. L. Black of Duke University has been granted further leave for work with the OPA in Washington.

James C. D. Blaine, assistant professor of business administration at the University of North Carolina, has been granted a leave of absence while serving as a Second Lieutenant in the Canadian Army.

Jay Blum, on leave from Kenyon College, is acting assistant professor of economics at Duke University.

A. T. Bonnell, assistant professor of economics at the University of North Carolina, has been granted a leave of absence while serving with the State Department in Washington.

Vera Briscoe, formerly of MacMurray College, is now research assistant in the University of Kentucky Bureau of Business Research.

Dean R. P. Brooks, after some months as Regional Price Executive in the OPA, has returned to his duties at the University of Georgia.

Dr. R. S. Cornish, formerly of Waynesburg College, is now teaching finance at the University of Georgia.

Jerome M. Dilling has been appointed instructor in economics at the University of Alabama.

Raymond Einhorn, assistant professor of accounting and statistics in the School of Business and Industry of Mississippi State College, has recently resigned his position in order to accept an appointment with the OPA in Washington, D. C., as associate cost accountant.

W. J. Eiteman, on leave from Duke University, is price executive for Alaska.

Assistant professor Herman A. Ellis, head of the Secretarial Science Department of the University of Georgia, is absent on leave and is instructor in the United States Naval Training School at Indiana University, Bloomington, Indiana.

Paul Gregory, recently with the Tariff Commission, has been appointed instructor in economics at Duke University.

L. T. Hawley, instructor in economics at the University of North Carolina, resigned in May to accept a position with the Bureau of Labor Statistics. He is located in Montgomery, Alabama.

Professor H. M. Heckman, head of the Accounting Department at the University of Georgia, took a leave of absence from January 1, 1943, and is chief accountant in the St. John's River Shipbuilding Corporation in Jacksonville, Florida.

Dr. S. Earl Heilman, recent instructor in the Mercer University Law School, has been appointed assistant professor of business law at the University of Alabama.

O. E. Heskin, associate professor of economics and marketing at the University of Florida, has been granted a leave of absence to join the U. S. Army.

John Hietbrink, formerly of Hope College, is now research assistant in the University of Kentucky Bureau of Business Research.

Dean C. B. Hoover of Duke University has been granted further leave for work with the Office of Strategic Services in Washington.

J. M. Keech of Duke University is on leave with the Civil Service Commission in Winston-Salem.

Clifton H. Kreps, Jr., formerly teaching fellow in economics and commerce in the University of North Carolina, is now serving as instructor in economics and commerce in the University of North Carolina.

Dr. Russell C. Larcom, formerly professor of economics and business administration at John B. Stetson University, has been appointed associate professor of economics at the University of Alabama.

R. A. Lester, who returned to Duke University after a year with the War Production Board, has been promoted to associate professor.

T. A. Leyden, instructor in accounting at the University of Georgia, has resigned to accept a position at Rider College, Trenton, New Jersey.

Donald F. Martin, Jr., assistant professor of economics at the University of North Carolina, has been granted a leave of absence while serving as first lieutenant in the United States Army.

James W. Martin, director, University of Kentucky Bureau of Business Research, who has been on leave for United States Treasury Department research, has returned for the fall quarter to his university work. He has been engaged in study of federal general sales tax possibilities, federal and state tax administration efficiency, and the operation of the Treasury Tax Research Division. He will continue the first of these; the last two have been completed.

Mrs. Minnie A. Miles has been appointed instructor in commerce at the University of Alabama.

Glenn Morrow, research assistant in the University of Kentucky bureau of business research for the past year and a half, has accepted part-time employment in the local government financial supervision work of the Kentucky Department of Revenue. He will expedite his research in state-local fiscal relations as well as contribute toward relieving an acute man-power shortage.

O. T. Mouzon, assistant professor of economics at the University of North Carolina, has been granted a leave of absence while serving with the Army General Staff in Washington.

Leonard D. Nichols, formerly assistant professor of Economics at Blue Ridge College, has been appointed assistant professor of economics at the University of Alabama.

A. W. Pierpont, instructor in economics at the University of North Carolina, resigned to accept a position with the Bureau of Labor Statistics. He is located in Jacksonville, Florida.

Raymond B. Pinchbeck, professor of economics and dean of the University of Richmond, has been granted a leave of absence to accept the position as economist with the Richmond branch of the OPA.

Dr. L. B. Raisty, of the University of Georgia, has resigned his professorship in public administration and is now with the Federal Reserve Bank in Atlanta. He is editor of the monthly bulletin issued by the Atlanta bank.

B. U. Ratchford is on leave from Duke University to act as state price executive for North Carolina.

Hart Schaaff, formerly with the Richmond branch of the College of William and Mary, is now working with the Richmond branch of OPA.

Franklin S. Schieder, instructor in the University of Georgia is now a first lieutenant, and is stationed in Washington, D. C. Assistant professor M. D. Dunlap is carrying the work of Mr. Schieder at the University.

- W. J. J. Smith, formerly part-time instructor at Duke University, is with the regional office of OPA in Atlanta.
- W. O. Suiter, associate professor of economics and business, and head of the department of economics and business at Guilford College, has secured a year's leave of absence to serve as assistant director of the Department of Tax Research of the State of North Carolina, with offices in Raleigh.

Victor B. Sullam has been appointed assistant in agricultural economics at North Carolina State College.

- Dr. Glenn W. Sutton, professor of finance at the University of Georgia, is absent on leave and is a lieutenant, senior grade, in the United States Navy. He is stationed in Athens, Georgia, with the Navy Pre-flight School.
- M. D. Taylor, professor of marketing at the University of North Carolina, has been granted a leave of absence while serving with the Civil Service Commission in Washington.
 - F. T. de Vyver of Duke University has been promoted to full professor.

James M. Waller, instructor in business law at the University of North Carolina, has been granted a leave of absence while serving in the United States Army.

Mrs. Mabel C. Watson, in the absence of assistant professor Herman A. Ellis, is in charge of the secretarial science department at the University of Georgia.

W. W. Welfling of Duke University has been granted further leave for work with OPA in Washington.

Instructor W. J. Winter, of the accounting department of the University of Georgia, is absent on leave and is in charge of the machine accounting at the St. John's River Shipbuilding Corporation.

NOTES

COMMUNICATION FROM THE SECRETARY OF THE SOUTHERN ECONOMIC ASSOCIATION

On September 24 the Secretary sent out ballots for the new officers of the Association to all members requesting that they be marked and returned by October 20. According to the Constitution of the Association, one candidate for each office had been officially placed in nomination by a Nominating Committee consisting of Messers. G. H. Aull of Clemson, Walter Matherly of Florida, and C. E. Bonnett of Tulane. The members had the privilege of voting for these candidates or any other persons they might desire to place on the ballot.

On October 21, the ballots were counted. Of the 142 ballots returned, 127 votes were cast for Mr. E. Z. Palmer, for President, 130 for Mr. D. Clark Hyde for First Vice-President, 126 for Mr. W. J. Phillips for Second Vice-President, and 132 for Mr. James E. Ward for Secretary-Treasurer. These results were certified by a Teller's Committee consisting of Messers W. T. Ferrier and James M. Stepp of Clemson and the above mentioned candidates declared elected. These new officers were notified of their election on November 4, which was within a few days of the time when our annual meeting had been originally scheduled.

JAMES E. WARD, Secretary

SOUTHERN ECONOMIC ASSOCIATION: RECEIPTS AND EXPENDITURES FOR THE YEAR ENDED OCTOBER 31, 1942

RECEIPTS:	
Annual memberships \$567.00	
Institutional memberships	587.00
	\$1,216.86
Expenditures:	
Stamps	
Printing and supplies 27.57	
Travel 47.54	
Miscellaneous	130.51
Southern Economic Journal	384.00
	\$514.51
October 31, 1942, Cash on hand	702.35
	\$1,216.86

Clemson, South Carolina November 3, 1942. James E. Ward, Treasurer

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THE SOUTHERN ECONOMIC JOURNAL: STATEMENT OF INCOME AND EXPENSE FROM NOVEMBER 1, 1941 THROUGH OCTOBER 31, 1942

Cash Balance, November 1, 1941			\$1,255.43
Income:			
Grants:			
University of North Carolina\$5	00.00		
North Carolina State College 2	50.00		
Woman's College, University of North Carolina 2	50.00		
Total Grants		\$1,000.00	
Annual Membership Fees		378.00	
Institutional Membership Fees		6.00	
Subscriptions			
Less Refund		764.50	
Advertising		455.00	
Miscellaneous Sales		61.50	
Total Income			2,665.00
Total			\$3,920.43
Expenses:			
Supplies and Materials		\$11.62	
Postage		105.80	
Printing the Journal		1,992.91	
Other Printing		11.75	
General Expense		415.72	
Total Expenses			2,537.80
Balance, October 31, 1942			\$1,382.63
Balance Represented by:			
Cash			\$1,260.13
Accounts Receivable (Advertising in October 1942 issue)			122.50
Total			\$1,382.63

D. H. BUCHANAN
Acting Managing Editor

- Accounting Fundamentals. Richard E. Strahlem. New York: The Ronald Press Co., 1942. Pp. x, 365. \$3.50.
- Business Behavior: 1919-1922. An Account of Post-war Inflation and Depression. By
 Wilson F. Payne. Chicago: Univ. of Chicago Press, 1942. Pp. xi, 215. Paper, \$1.50.
 Consumers and the Market. By Margaret G. Reid. New York: F. S. Crofts & Co., 1942.
 - Pp. xvii, 617. \$3.85.
- Cotton Counts its Customers. By M. K. Horne and Frank A. McCord. Memphis: Bureau of Business Research, University of Mississippi, and Division of Research, National Cotton Council of America, 1942. Pp. 29 (paper). No price given.
- Economics Condensed. By M. H. Hunter. New York: Harper & Bros., 1942. Pp. 138. \$.90. Economic History of the American People. (A revision of Ernest L. Bogart's Economic History of the American People.) By Ernest L. Bogart and Donald L. Kemmerer. New York: Longmans, Green and Co., 1942. Pp. x, 909. \$3.75.
- Economic Planning. By Claude David Baldwin. Urbana, Ill. University of Illinois Press. 1942. Pp. 188. \$2.50.
- Economic Problems of War. By Raymond T. Bye and Irving B. Kravis. New York: F. S. Crofts & Co., 1942. Pp. 59. \$.50.
- Economic Problems of War and its Aftermath. By Chester W. Wright and Others. Chicago: The University of Chicago Press, 1942. Pp. xi, 197. \$2.00.
- Flush Production. By Gerald Forbes. Norman: Univ. Oklahoma Press, 1942. Pp. 253. \$2.75.
 Foreign Trade Principles and Practices. By Grover G. Huebner and Roland L. Kramer.
 New York: D. Appleton-Century Co., 1942. Pp. xiii, 554. \$4.00.
- Governments-In-Exile on Jewish Rights. By Research Institute on Peace and Post-War Problems of The American Jewish Committee. New York, 1942. Pp. 64. Paper. No price given.
- How Collective Bargaining Works. By Harry A. Millis and others. New York: The Twentieth Century Fund, 1942. Pp. xxviii, 986. \$4.00.
- Intermediate Accounting. By E. I. Fjeld and Lawrence W. Sherritt. New York: The Ronald Press Co., 1942. Pp. xi, 533. \$4.00.
- The International Economy. By John Parke Young. New York: The Ronald Press Co., 1942. Pp. xiv, 714. \$4.50.
- Introductory Economics. By George T. Brown. New York: D. Appleton-Century Co., 1942. Pp. vi, 190. \$1.50.
- Network of World Trade. League of Nations. Geneva, 1942. Pp. 172. \$2.75, paper. Principles of Cost Accounting. By J. F. Sherwood and Franklin T. Chace. Cincinnati: South-Western Publishing Company, 1942. Pp. 271. \$1.70.
- Population Problems. By Warren S. Thompson. New York: McGraw-Hill Book Company, 1942. Pp. xi, 471. \$4.00.
- Syllabus of Economic Theory. By Lewis H. Haney. New York: New York University Book Store, 1942. Pp. 49. Paper, \$1.10.
- The Theory of Capitalist Development. By Paul M. Sweezy. New York: Oxford University Press, 1942. Pp. xiv, 398. \$4.00.
- Wartime Food Developments in Germany. By Helen C. Farnsworth. California: Food Research Institute, Stanford University, 1942. Pp. 36. \$.25. Paper.
- Wartime Transference of Labour in Great Britain. By International Labour Office. Montreal, 1942. Pp. vi, 163. \$1.50. Paper, \$1.00.
- Wartime Rationing. By League of Nations. Geneva, 1942. Pp. 87. \$1.00. Paper. War Without Inflation. By George Katona. New York: Columbia University Press, 1942. Pp. x, 213. \$2.50.

